

June 23, 2021

The Honorable Dr. Miguel Cardona
Secretary, U.S. Department of Education
400 Maryland Avenue, SW
Washington, D.C. 20202

Dear Secretary Cardona,

On behalf of our thousands of members and supporters, the undersigned organizations urge the Department of Education to provide detailed ventilation and indoor air quality guidance to schools. The COVID-19 pandemic has sharply highlighted decades of neglect of indoor air quality (IAQ) in schools. Despite its importance, poor ventilation in schools is a widespread, persistent problem. Students, parents, and teachers should enter a classroom with assurance that they are safe, including the air they breathe. General ventilation requirements for schools already exist, but those requirements have failed to ensure adequate ventilation due to the lack of explicit guidance on the necessary procedures and steps to ensure compliance. We urge the Department of Education to issue this guidance immediately.

It is well known that HVAC systems serving educational facilities are in need of repair. The U.S. Government Accountability Office (“GAO”) estimates that 41% of public-school districts in the country need to update or replace their HVAC systems in at least half their schools.ⁱ This represents approximately 36,000 schools nationwide that need HVAC updates.ⁱⁱ In fact, the GAO emphasized: “If not addressed, HVAC issues can result in health and safety problems.”ⁱⁱⁱ

Numerous studies have documented that poor quality work is common and leads to reduced energy efficiency and increased safety hazards. Data demonstrates that the vast majority of classrooms studied fail to meet minimum ventilation rates.^{iv} This is not just a problem in older systems. Even classrooms tested only a few years after a new air system installation have revealed ventilation levels below the minimum required rates, including exceeding safe carbon dioxide levels, and researchers recommend periodic testing of HVAC systems and continuous real-time CO2 monitoring to detect and correct these problems.

The persistence of underperforming HVAC systems and inadequate ventilation rates is of particular concern as the United States looks to fully reopen schools and remove mask mandates during the COVID-19 pandemic. The World Health Organization,^v the CDC,^{vi} and ASHRAE^{vii} recommend ensuring ventilation systems operate properly, increasing ventilation rates, and installing filters with a minimum efficiency rating value (“MERV”) of 13 or better where possible in order to reduce the spread of COVID-19. A May 2020 report by Dr. Jovan Pantelic at University of California-Berkeley further identified continuous CO2 monitoring as critical to ensuring ventilation rates remain adequate during the school year.^{viii}

Improving the performance of school HVAC systems not only provides a safer and healthier building environment, but it also has a significant correlation to student academic outcomes. Not only can poorly functioning HVAC systems heighten the risk of COVID-19 transmission, but it can also increase the number of sick days experienced by students and staff and degrade student performance.^{ix} In fact, studies demonstrate that student performance can increase up to 15 percent with increased ventilation rates or lower CO2 concentrations.^x

With incoming federal funding, our communities have a once-in-a-generation opportunity to improve our schools’ heating, ventilation, and air conditioning (HVAC) systems. However, the intended outcomes will

only be achieved if the systems are repaired, installed, adjusted, and maintained by technicians who are trained and certified; efficiencies gained through new technologies are only as effective as the conditions under which they operate.

While the information the Department of Education has shared with schools notes that a plan for safe return to in-person instruction and continuity of services should address CDC recommendations for ventilation, more explicit guidance is needed to ensure student and staff safety. The CDC recommendations on ventilation are general in nature and do not provide specific guidance on the necessary steps and procedures to ensure that a school building provides and will continue to provide adequate ventilation and filtration to classrooms. Such guidance, however, does exist.

The U.C. Davis Energy and Efficiency Institute's White Paper: Proposed Ventilation and Energy Efficiency Verification/Repair Program for School Reopening ("Ventilation White Paper") has taken the CDC guidelines and has identified the specific, minimum testing, adjusting and monitoring procedures that are necessary to comply with the CDC guidelines and other applicable national standards on ventilation in schools.^{xi} Several States have already adopted, or are in the process of adopting, these recommendations as requirements.^{xii}

Our organizations urge the Department of Education to issue guidelines that describe the specific actions schools can take to improve indoor air quality, including inspection, testing, maintenance, repair, replacement, and upgrade projects, and outline how schools can develop an estimated timeline for taking such actions, consistent with the procedures identified in the Ventilation White Paper. This additional guidance is needed to ensure that schools are developing meaningful and effective plans to improve ventilation in school facilities and complying with applicable state standards and guidelines to keep the school community safe. Whether working toward those or other similar standards, states and local educational agencies need more information and support.

We stand ready to work with the Education Department to develop this guidance to help reopen schools safely, protect public health and our school communities. We look forward to your response.

Sincerely,

AASA, The School Superintendents Association
American Federation of School Administrators
American Federation of Teachers
American Occupational Therapy Association
American Society of Interior Designers
Association of Education Service Agencies
Association of School Business Officials International (ASBO)
Asthma and Allergy Foundation of America
BuildingAction
Campaign for Environmental Literacy
Center for Cities + Schools, University of California-Berkeley
Coalition for Adequate School Housing (CASH)
Collaborative for High Performance Schools (CHPS)
Council of Administrators of Special Education
International Association of Sheet Metal, Air, Rail and Transportation Workers (SMART)
International WELL Building Institute
National Association of Elementary School Principals

National Association of Energy Service Companies
National Association of Secondary School Principals
National Association of State Directors of Special Education
National Education Association
National Rural Education Advocacy Coalition
National Wildlife Federation
Parents For Students Safety
Rhode Island Environmental Education Association
School-Based Health Alliance
21st Century School Fund

ⁱ U.S. Government Accountability, Report to Congress: K-12 Education School Districts Frequently Identified Multiple Building Systems Needing Updates or Replacement (June 2020) p. 8, available at <https://www.gao.gov/assets/710/707517.pdf>.

ⁱⁱ Ibid.

ⁱⁱⁱ Id. at p. 11.

^{iv} Chan, et. al., Ventilation Rates in California Classrooms: Why Many Recent HVAC Retrofits Are Not Delivering Sufficient Ventilation, 167 Building and Environment Journal (2020), available at <https://escholarship.org/content/qt2j55896z/qt2j55896z.pdf>.

^v World Health Organization, Considerations for School-Related Public Health Measures in the Context of COVID-19 (Sept. 14, 2020), available at <https://www.who.int/publicationsdetail/considerations-for-school-related-public-health-measures-in-the-context-of-covid-19>; World Health Organization, Roadmap to Improve and Ensure Good Indoor Air Ventilation in the Context of COVID-19 (2021), available at https://www.who.int/docs/default-source/coronaviruse/corrigenda---ventilation-roadmap-2021-03-05-corr-2021-04-13-en.pdf?sfvrsn=7b694195_5.

^{vi} Centers for Disease Control and Prevention, Operational Strategy for K-12 Schools through Phased Prevention, https://www.cdc.gov/coronavirus/2019-ncov/community/schoolschildcare/operationstrategy.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcommunity%2Fschools-childcare%2Fschools.html (last updated May 15, 2021); Centers for Disease Control and Prevention, Guidance for Businesses and Employers Responding to Coronavirus Disease (COVID-19): Plan, Prepare and Respond to Coronavirus Disease 2019, <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html> (last updated Dec. 31, 2021).

^{vii} 2 American Society of Heating, Refrigeration and Air-Conditioning Engineers, ASHRAE Epidemic Task Force: Building Readiness, <https://www.ashrae.org/file%20library/technical%20resources/covid19/ashrae-building-readiness.pdf> (last updated Apr. 27, 2021); American Society of Heating, Refrigeration and Air-Conditioning Engineers, ASHRAE Epidemic Task Force: Schools & Universities, available at <https://www.ashrae.org/file%20library/technical%20resources/covid19/ashrae-reopening-schools-and-universities-c19-guidance.pdf> (last updated July 17, 2020).

^{viii} Pantelic, White Paper: Using IoT Environmental Sensing to Reopen Spaces, (May 2020), available at <https://cdn2.hubspot.net/hubfs/5238584/White%20Paper%20Senseware%20Covid.pdf>.

^{ix} U.C. Davis Energy and Efficiency Institute and National Energy Management Institute, White Paper: Proposed Ventilation and Energy Efficiency Verification/Repair Program for School Reopening, Version 4 (Feb. 15, 2021) (hereinafter “Ventilation White Paper”) pp. 1-4, available at <https://ucdavis.app.box.com/v/ProposedVentilationProgram>.

^x Fisk, et. al., The Ventilation Problem in Schools: Literature Review, 27 Indoor Air 1039-51 (2017), available at <https://escholarship.org/content/qt7kz5v64c/qt7kz5v64c.pdf>.

^{xi} U.C. Davis Energy and Efficiency Institute and National Energy Management Institute, White Paper: Proposed Ventilation and Energy Efficiency Verification/Repair Program for School Reopening, Version 4 (Feb. 15, 2021) (hereinafter “Ventilation White Paper”) pp. 1-4, available at <https://ucdavis.app.box.com/v/ProposedVentilationProgram>.

^{xii} See e.g., California Assembly Bill 841 (codified at Cal. Pub. Util. Code §§ 1600 et seq.); NELIS, Nevada Legislature: Assembly Bill 257, <https://www.leg.state.nv.us/App/NELIS/REL/81st2021/Bill/7721/Overview> (last visited May 24, 2021)