

ASSEMBLY THIRD READING

AB 2232 (McCarty)

As Amended May 19, 2022

Majority vote

SUMMARY

Requires a school district, county office of education (COE), charter school, private school, the California Community Colleges (CCC), the California State University (CSU), and requests the University of California (UC), to ensure that facilities, including classrooms for students, have heating, ventilation, and air conditioning (HVAC) systems that meet minimum ventilation rate requirements, as specified, and to install filtration that achieves minimum efficiency reporting values (MERV) levels of 13 or higher. Requires the Division of the State Architect (DSA) to propose for adoption mandatory standards for carbon dioxide monitors in classrooms of a covered school and the UC.

Major Provisions

- 1) Establishes the following definitions:
 - a) "Covered school" means a school district, a COE, a charter school, a private school, the CCCs, or the CSU;
 - b) "HVAC" means heating, ventilation, and air conditioning; and
 - c) "MERV" means minimum efficiency reporting values.
- 2) Requires a covered school to, and the UC is requested to, ensure that facilities, including, but not limited to, classrooms for students, have HVAC systems that meet the minimum ventilation rate requirements set forth in Table 120.1-A of Part 6 (commencing with Section 100.0) of Title 24 of the California Code of Regulations, unless the existing HVAC system is not capable of safely and efficiently providing the minimum ventilation rate.
- 3) Requires that, if a school's existing HVAC system is not capable of safely and efficiently providing the minimum ventilation rate as proposed to be required, the covered school to, and the UC is requested to, ensure that its HVAC system meets the minimum ventilation rates in effect at the time the building permit for installation of that HVAC system was issued.
- 4) Requires a covered school to, and the UC is requested to, document the HVAC system's inability to meet the current ventilation standards in the annual HVAC inspection report required by of Title 8 of the California Code of Regulations Section 5142, and make this information available to the public upon request.
- 5) Requires a covered school to, and the UC is requested to, install filtration that achieves MERV levels of 13 or higher where feasible with the existing HVAC system.
- 6) Requires, during the 2022 Intervening Code Adoption Cycle of the California Building Standards Code (Title 24 of the California Code of Regulations), the DSA to research, develop, and propose for adoption mandatory standards for carbon dioxide monitors in classrooms of a covered school and the UC.

- 7) Specifies that this bill shall apply to the UC only to the extent that the Regents of the UC, by resolution, make it applicable.

COMMENTS

HVAC requirements. Various sections of the law, in different Codes and Code sections, require school facilities to be in good working order and well maintained, including specified inspections. In 2004, the state settled the *Williams v. California* lawsuit and agreed to a number of initiatives intended to provide equal access to instructional materials, safe and decent school facilities, and qualified teachers. The settlement resulted in an agreement to provide funds to low performing schools (deciles 1-3 on the Academic Performance Index), including \$800 million for emergency repair of school facilities. COEs were charged with inspection of the low-performing schools based on criteria of schools in good repair. "Good repair" is defined as a facility that is clean, safe and functional. The settlement also includes a lengthy list of facilities components required to be inspected, including gas pipes, doors and windows, fences, fire sprinklers, fire extinguishers, alarm systems, electrical systems, lighting, drinking fountains, roofs, gutters, and mechanical systems, which includes HVAC systems.

Under the Labor Code, the Occupational Safety and Health Standards Board (Board) is authorized to develop health and safety requirements for the protection of workers. Regulations adopted by the Board (Title 8, Section 5142) require HVAC systems to be maintained and operated in accordance with the State Building Standards Code and continuously functioning during working hours with some exceptions (e.g., during scheduled maintenance). The regulations also require the HVAC system to be inspected at least annually and problems found during the inspections to be corrected within a reasonable time. The employer is required to document in writing the name of the individual inspecting or maintaining the system, the date of the inspection and/or maintenance, and the specific findings and actions taken. The records are required to be retained for at least five years and made available for examination and copying, within 48 hours of a request, to the Division of Industrial Relations, any employee of the employer, and to any designated representative of employees.

Carbon dioxide monitors. Studies have found a link between low ventilation rates (supply of outdoor air) in classrooms and attendance, health and student performance. Adequate ventilation helps students be more alert and focused and is associated with fewer respiratory symptoms and absences due to illness. Ventilation standards are specified in Title 24 regulations. In a 2020 article, researchers at the Lawrence Berkeley National Laboratory and the Western Cooling Efficiency Center at UC Davis reported findings of a study of 11 K-12 schools, monitoring 104 classrooms, with ventilation rates of a majority of the classrooms exceeding the Title 24 level. Carbon dioxide monitors can be used as a proxy for the level of ventilation in a classroom. When classrooms are empty, carbon dioxide levels will be lower. When classrooms are occupied, carbon dioxide levels will be higher as carbon dioxide is exhaled by the people in the room.

The construction of school district, COE and CCC facilities is required to comply with Title 24 regulations. Beginning January 1, 2023, Title 24 requires carbon dioxide monitors to be installed in all new classrooms. According to the DSA, during the next Title 24 regulatory code cycle, carbon dioxide monitors for existing schools doing repairs or alterations may be considered. Charter and private schools are required to comply with local building codes and not Title 24 regulations.

According to the Author

"Poor air quality in classrooms is a pervasive problem that negatively impacts student health and learning. Despite laws requiring schools to maintain functional HVAC systems to supply adequate ventilation and safe indoor air quality, poor indoor air quality remains an extensive problem. Additionally, poor installment of HVAC systems substantially increase energy costs and fail to maintain good indoor air quality. AB 2232 will require comprehensive HVAC inspections and air monitors in classrooms to ensure the wellbeing and learning of California students are protected from the harmful effects of poor air quality."

Arguments in Support

The United States Green Building Council states, "Under-ventilated schools are associated with increased transmission of infection, asthma exacerbation, cognitive impairment, and health impacts. This, in turn, affects how students learn. Students who attend schools with poor ventilation rates find it more challenging to learn, perform simple and complex tasks, and make decisions. Setting a minimum ventilation rate requirement would set the expectation that fresh air is not something that is nice to have, but rather is *necessary* for students and teachers to function at school."

Arguments in Opposition

The California Catholic Conference states, "The goals and intent of AB 2232 are laudable. And while we agree that all of California's students should learn in modernized facilities, not all of California's schools have access to the same resources to that end. We would note that the Leroy F. Greene School Facilities Act of 1998 (California Education Code Sections 17070.10 to 17079.30), which serves as the legal anchor for AB 2232's proposed provisions, is specific to public schools. Nowhere in that Act's General Provisions (Education Code Section 17070.10 to 17070.99) are private schools mentioned. Neither are private schools referenced in the Act's Modernization Eligibility Determination section (Education Code Sections 17073.10 to 17073.25). Further, the bill seemingly acknowledges that private educational entities (not entitled to receipt of state funding for purposes of modernizing, or otherwise improving physical facilities) ought not be made subject to AB 2232's provisions via the omission of private institutions of higher education from the bill's enumeration of 'covered schools.' Private K-12 schools should be similarly excluded."

FISCAL COMMENTS

According to the Assembly Appropriations Committee:

- 1) Unknown, significant on-going cost to the General Fund (GF) for the University of California and California State University to maintain HVAC systems as specified.
- 2) Unknown, significant on-going cost to Proposition 98 (GF) for local educational agencies and the California community colleges to maintain HVAC systems as specified. If the Commission on State Mandates determines that this bill imposes a state-mandated program, costs would be reimbursable.
- 3) Unknown, potentially significant cost to the General Fund for the Division of the State Architect to research, develop, and propose mandatory standards for carbon dioxide monitors in classrooms.

VOTES

ASM EDUCATION: 5-1-1

YES: O'Donnell, Bennett, Lee, McCarty, Quirk-Silva

NO: Megan Dahle

ABS, ABST OR NV: Chen

ASM HIGHER EDUCATION: 9-2-1

YES: Medina, Arambula, Bloom, Gabriel, Irwin, Levine, Low, Santiago, Akilah Weber

NO: Choi, Kiley

ABS, ABST OR NV: Valladares

ASM APPROPRIATIONS: 12-4-0

YES: Holden, Bryan, Calderon, Carrillo, Mike Fong, Gabriel, Eduardo Garcia, Levine, Quirk, Robert Rivas, Akilah Weber, Wilson

NO: Bigelow, Megan Dahle, Davies, Fong

UPDATED

VERSION: May 19, 2022

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