

Senate Bill 414

Sponsored by Senator DEMBROW, Representative NERON; Senator PATTERSON (Pre-session filed.)

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure **as introduced**.

Requires school districts to prepare ventilation verification assessment and take certain actions based on recommendations that result from assessment. Requires school districts to install carbon dioxide monitors in classrooms. Requires school districts to submit verification report to Department of Education.

Establishes School Ventilation Fund.

A BILL FOR AN ACT

1
2 Relating to school indoor air quality.

3 **Be It Enacted by the People of the State of Oregon:**

4 **SECTION 1. As used in this section:**

5 (1) **"ASHRAE" means American Society of Heating, Refrigerating and Air-Conditioning**
6 **Engineers.**

7 (2) **"Certified TAB technician" means an individual certified to test, adjust and balance**
8 **an HVAC system by the Associated Air Balance Council, the National Environmental Bal-**
9 **ancing Bureau or the Testing, Adjusting and Balancing Bureau.**

10 (3) **"HVAC" means heating, ventilation and air conditioning.**

11 (4) **"Mechanical engineer" means a registered professional engineer, as defined in ORS**
12 **672.002, with professional experience with HVAC systems.**

13 (5)(a) **"Mechanical ventilation system" means a building ventilation system provided by**
14 **mechanically powered, permanent equipment, such as motor-driven fans and blowers.**

15 (b) **"Mechanical ventilation system" does not include devices such as wind-driven turbine**
16 **ventilators, portable air cleaning and filtration devices and mechanically operated windows.**

17 (6) **"Ppm" means parts per million.**

18 (7) **"Qualified adjusting personnel" means:**

19 (a) **A certified TAB technician; or**

20 (b) **An individual working under the supervision of a TAB technician.**

21 (8) **"Qualified testing personnel" means:**

22 (a) **A certified TAB technician; or**

23 (b) **A person certified to perform ventilation verification assessments of HVAC systems**
24 **through a certification body accredited by the American National Standards Institute Na-**
25 **tional Accreditation Board.**

26 (9) **"School district" has the meaning given that term in ORS 332.002.**

27 **SECTION 2. (1) A school district shall have a ventilation verification assessment per-**
28 **formed by qualified testing personnel at each school facility. The assessment shall be per-**
29 **formed at least once every five years and shall include the following:**

30 (a) **A description of HVAC equipment model numbers or serial numbers and a general**

NOTE: Matter in **boldfaced** type in an amended section is new; matter *[italic and bracketed]* is existing law to be omitted. New sections are in **boldfaced** type.

1 description of HVAC equipment.

2 (b) Testing to determine maximum filter efficiency.

3 (c) A calculation of the minimum outside air ventilation rates for each occupied area
 4 based on anticipated occupancy and the minimum required ventilation rate per occupant, as
 5 described in the minimum ventilation rate requirements set forth in the mechanical specialty
 6 code.

7 (d) Physical measurements of outside air rates.

8 (e) Verification of the proper operation of ventilation components.

9 (f) Measurement of all air distribution inlets and outlets.

10 (g) Verification of the proper operation of the HVAC system and that required mainte-
 11 nance has been performed in accordance with ASHRAE Standard 62.1-2019, Section 8 and
 12 Table 8-1.

13 (h) Verification of control sequences.

14 (i) The collection of field data for the installation of a mechanical ventilation system, if
 15 no mechanical ventilation system exists at the school facility.

16 (2) Qualified testing personnel shall record the results of the assessment in a report and
 17 submit the report for review by a mechanical engineer as described in section 4 of this 2023
 18 Act.

19 **SECTION 3.** (1) A school district shall ensure that each classroom is equipped with a
 20 carbon dioxide monitor that:

21 (a) Is mounted to the wall between 3 and 6 feet above the floor and at least 5 feet away
 22 from the door and operable windows.

23 (b) Displays carbon dioxide readings to a teacher through a display on the device or other
 24 means such as a computer or cellular phone application.

25 (c) Provides notification through a visual indicator on the monitor, or other alert such
 26 as electronic mail, text message or cellular phone application, when the carbon dioxide levels
 27 in the classroom have exceeded 1,100 ppm.

28 (d) Maintains a record of previous data which includes at least the maximum carbon
 29 dioxide concentrations measured.

30 (e) Has a range of 1-5000 ppm.

31 (f) Is certified by the manufacturer to be accurate within 75 ppm at 1,000 ppm carbon
 32 dioxide concentration and is certified by the manufacturer to require calibration no more
 33 frequently than once every five years.

34 (2) Qualified testing personnel shall assess whether carbon dioxide monitors meet the
 35 requirements of this section and include the assessment in the report submitted to a me-
 36 chanical engineer under section 4 of this 2023 Act.

37 (3)(a) If a classroom carbon dioxide concentration alarm setpoint is exceeded for more
 38 than 15 minutes more than 4 times during a month, classroom ventilation rates shall be ad-
 39 justed or a direct outside airflow intake flow measurement device installed, and its accuracy
 40 verified, to ensure peak carbon dioxide concentrations in the classroom remain below the
 41 setpoint.

42 (b) Adjustments shall be performed by qualified adjusting personnel.

43 (c) Each school shall record all incidents where the setpoint was breached in a classroom
 44 and maintain those records for at least five years. Records under this paragraph shall be
 45 made available to the public upon request.

1 (4) The Department of Education may, by rules adopted under section 7 of this 2023 Act,
2 adjust the technical requirements for carbon dioxide monitors described in this section based
3 on technological developments and as is consistent with maintaining proper ventilation in
4 classrooms.

5 **SECTION 4.** (1) A school district shall obtain an HVAC assessment report prepared by
6 qualified testing personnel. The report shall include the results of the ventilation verification
7 assessment carried out under section 2 of this 2023 Act and a description of whether carbon
8 dioxide monitors meet the requirements of section 3 of this 2023 Act.

9 (2) A school district shall ensure that a mechanical engineer reviews the report prepared
10 under subsection (1) of this section. The mechanical engineer shall confirm or adjust the
11 estimated minimum outside air ventilation rates and determine what, if any, additional ad-
12 justments, repairs, upgrades, or replacements would be necessary to meet the minimum
13 ventilation and filtration requirements of the mechanical specialty code and provide a cost
14 estimate for all recommended work.

15 (3) A school district shall perform the necessary adjustments, repairs, upgrades or re-
16 placements recommended by the mechanical engineer under subsection (2) of this section.

17 **SECTION 5.** A school district shall require a contractor carrying out work required by
18 sections 1 to 7 of this 2023 Act to:

19 (1) Enter into a project labor agreement that, at a minimum, provides for payment of
20 wages at or above the prevailing rate of wage;

21 (2) Employ apprentices to perform 15 percent of the work hours that workers in
22 apprenticeable occupations, as defined in ORS 660.010, perform under the contract, in a
23 manner consistent with the apprentices' respective apprenticeship training programs; and

24 (3) Ensure that work is performed by qualified testing personnel or qualified adjusting
25 personnel as required by sections 1 to 7 of this 2023 Act.

26 **SECTION 6.** (1) Within 30 days of completing the work recommended by a mechanical
27 engineer under section 4 of this 2023 Act, a school district shall submit to the Department
28 of Education an HVAC verification report that includes:

29 (a) The name and address of the school facility and the name and address of the person
30 preparing the report.

31 (b) A description of assessment, maintenance, adjustment, repair, upgrade and replace-
32 ment activities and outcomes performed, including:

33 (A) The minimum efficiency reporting value of the filtration system.

34 (B) Verification that ventilation rates for facility classrooms, auditoriums, gymnasiums,
35 nurses' offices, restrooms, offices and other occupied areas meet the minimum ventilation
36 rate requirements set forth in the mechanical specialty code or an explanation why the
37 current system is unable to meet those requirements.

38 (C) Verified exhaust rates for facility classrooms, auditoriums, gymnasiums, nurses' of-
39 fices, restrooms and other occupied areas and whether those rates meet the requirements
40 of the system design.

41 (D) Documentation of initial operating verifications, adjustments and final operating
42 verifications and documentation.

43 (E) Verification that carbon dioxide monitors have been installed in compliance with
44 section 3 of this 2023 Act.

45 (F) Verification that work performed satisfies the workforce standards described in sec-

1 tion 5 of this 2023 Act, including the names and certification or license numbers of contrac-
2 tors, qualified testing personnel and qualified adjusting personnel.

3 (2) The department shall maintain a copy of the report required under this section for
4 at least five years and make copies of the report available to a member of the public upon
5 request.

6 SECTION 7. The Department of Education may adopt rules as necessary to carry out
7 sections 1 to 7 of this 2023 Act.

8 SECTION 8. The School Ventilation Fund is established in the State Treasury, separate
9 and distinct from the General Fund. Interest earned by the School Ventilation Fund shall
10 be credited to the fund. Moneys in the fund are continuously appropriated to the Department
11 of Education for the purpose of providing financial assistance to school districts to meet the
12 requirements of sections 1 to 7 of this 2023 Act.

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