



# Senate

General Assembly

**File No. 483**

January Session, 2021

Substitute Senate Bill No. 288

*Senate, April 15, 2021*

The Committee on Public Health reported through SEN. DAUGHERTY ABRAMS of the 13th Dist., Chairperson of the Committee on the part of the Senate, that the substitute bill ought to pass.

## ***AN ACT CONCERNING INDOOR AIR QUALITY IN SCHOOLS.***

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. Section 10-231e of the general statutes is repealed and the  
2 following is substituted in lieu thereof (*Effective July 1, 2021*):

3 (a) [For purposes of] As used in this section and sections 2 to 4,  
4 inclusive, of this act:

5 (1) "School facility" means any permanent building or portable  
6 building or structure or commercial space owned, rented, operated or  
7 leased by a local or regional board of education, including, but not  
8 limited to, donated space, that is used as a classroom or day care or any  
9 other space for education services, including, but not limited to,  
10 classrooms, cafeterias, staff lounges, staff offices, auditoriums,  
11 gymnasiums and libraries;

12 (2) "HVAC system" means the equipment, distribution network and

13 terminals that provide, either collectively or individually, heating,  
14 ventilation or air conditioning to a building;

15 (3) "School activity hours" means any time of day in which students  
16 or school personnel occupy a school facility throughout the year;

17 (4) "Standard 62" means the American Society of Heating, Ventilating  
18 and Air Conditioning Engineers Standard 62 entitled "Ventilation for  
19 Acceptable Indoor Air Quality", as referenced by the State Building  
20 Code adopted under section 29-252; [.] and

21 (5) "Routine indoor air quality monitoring program" means testing  
22 procedures, testing protocols and testing frequency to ensure that the  
23 maintenance and operation of HVAC systems are in accordance with  
24 Standard 62.

25 (b) Each local [or] and regional board of education shall ensure that  
26 its [heating, ventilation and air conditioning] HVAC system is (1)  
27 maintained and operated in accordance with [the prevailing  
28 maintenance standards, such as] Standard 62, [at the time of installation  
29 or renovation of such system,] and (2) operated continuously during  
30 [the hours in which students or school personnel occupy school  
31 facilities] school activity hours, except (A) during scheduled  
32 maintenance and emergency repairs, and (B) during periods for which  
33 school officials can demonstrate to the local or regional board of  
34 education's satisfaction that the quantity of outdoor air supplied by an  
35 air supply system that is not mechanically driven meets the Standard 62  
36 requirements for air changes per hour. A local or regional board of  
37 education shall close a school for the day if Standard 62 cannot be  
38 maintained by the school for two or more consecutive school activity  
39 hours.

40 (c) Each local and regional board of education shall maintain each of  
41 its school's gymnasiums at an indoor temperature not lower than sixty-  
42 five degrees Fahrenheit and no higher than eighty-five degrees  
43 Fahrenheit while the gymnasium is in use by students. A local or  
44 regional board of education shall require that a school close its

45 gymnasium for the day when the temperature required pursuant to this  
46 subsection cannot be maintained for two or more consecutive hours  
47 while the gymnasium is in use by students.

48 [(c)] (d) Each local [or] and regional board of education shall maintain  
49 records of the maintenance of its [heating, ventilation and air  
50 conditioning] HVAC systems for a period of not less than five years.

51 Sec. 2. (NEW) (*Effective July 1, 2021*) (a) On or before June 30, 2022, the  
52 Department of Public Health shall establish a routine indoor air quality  
53 monitoring program for use by local and regional boards of education  
54 that (1) is consistent with Standard 62, and (2) has been approved by a  
55 scientist with expertise in indoor air quality and an industry  
56 professional having knowledge of and experience with Standard 62. The  
57 department shall post the details of such program on its Internet web  
58 site.

59 (b) On or before June 30, 2025, and triennially thereafter, the  
60 Department of Public Health shall review and update as necessary the  
61 routine indoor air quality monitoring program to ensure its efficacy.

62 Sec. 3. (NEW) (*Effective July 1, 2021*) (a) On or before June 30, 2023,  
63 each local and regional board of education shall implement in each  
64 school under the jurisdiction of such board the routine indoor air quality  
65 monitoring program established by the Department of Public Health  
66 pursuant to section 2 of this act. A local or regional board of education,  
67 with the approval of the Department of Public Health and its regional  
68 council of governments, may transfer implementation of such routine  
69 indoor air quality monitoring program to such regional council of  
70 governments, provided such board shall retain legal and fiscal  
71 responsibility for the implementation of the program.

72 (b) On or before June 30, 2023, the Department of Public Health shall  
73 establish reporting requirements for local and regional boards of  
74 education to ensure that the routine indoor air quality monitoring  
75 program is being properly implemented in the school facilities under  
76 the jurisdiction of such board during school activity hours.

77 (c) On or before June 30, 2023, the Department of Public Health shall  
78 establish a voluntary contractor certification program for school facility  
79 indoor air quality services. On or before June 30, 2023, any local or  
80 regional board of education entering into a contract for indoor air  
81 quality services shall do so only with a contractor certified by the  
82 Department of Public Health to provide such services.

83 Sec. 4. (NEW) (*Effective July 1, 2021*) (a) On or before December 31,  
84 2021, the superintendent of schools for a school district shall (1)  
85 designate an individual to be responsible for receiving complaints of  
86 poor indoor air quality within a school facility, including, but not  
87 limited to, evidence of mold, pest infestation or hazardous odors or  
88 chemicals, and reporting such complaints to the superintendent, (2)  
89 make available on the school district's Internet web site the procedure  
90 for any party to file such a complaint with the designated individual, (3)  
91 forward any such complaint to the president of any bargaining unit,  
92 whose members may be affected by such reported condition, and (4)  
93 report such a complaint to the local or regional board of education at the  
94 next regularly scheduled meeting.

95 (b) A local or regional board of education shall investigate any indoor  
96 air quality complaint filed pursuant to subsection (a) of this section and  
97 determine the existence of any health hazard. Upon confirmation of the  
98 presence of a health hazard, such board shall notify the Labor  
99 Department's Occupational Safety and Health Administration of such  
100 health hazard and develop and implement a plan for remedying such  
101 hazard. Such board shall submit such plan to the Department of Public  
102 Health for approval, in a manner determined by the Commissioner of  
103 Public Health.

104 (c) On or before June 30, 2022, each local and regional board of  
105 education shall participate in the United States Environmental  
106 Protection Agency's Air Quality Flag Program.

This act shall take effect as follows and shall amend the following sections:

|           |                     |             |
|-----------|---------------------|-------------|
| Section 1 | <i>July 1, 2021</i> | 10-231e     |
| Sec. 2    | <i>July 1, 2021</i> | New section |
| Sec. 3    | <i>July 1, 2021</i> | New section |
| Sec. 4    | <i>July 1, 2021</i> | New section |

***Statement of Legislative Commissioners:***

In Section 2(a), Subdiv. (1) was moved before "is" for clarity; in Section 2(a)(2), "has been" was added before "approved" for clarity; in Section 2(b), "approve" was changed to "update as necessary" for clarity; in Section 3(a), "of its schools" was changed to "school under the jurisdiction of such board" for clarity and for consistency with standard drafting conventions, "developed" was changed to "established" for clarity and consistency with provisions of Section 2, and "execution" was changed to "implementation" for consistency with other provisions of the Section; in Section 3(b), "in effect at each of their school facilities" was changed to "being properly implemented in the school facilities under the jurisdiction of such board" for clarity; in Section 4(a), "of schools" was added for consistency with other provisions of the general statutes; and in Section 4(a)(2), "school" was added for consistency with other provisions of the general statutes.

***PH***      *Joint Favorable Subst. -LCO*

The following Fiscal Impact Statement and Bill Analysis are prepared for the benefit of the members of the General Assembly, solely for purposes of information, summarization and explanation and do not represent the intent of the General Assembly or either chamber thereof for any purpose. In general, fiscal impacts are based upon a variety of informational sources, including the analyst's professional knowledge. Whenever applicable, agency data is consulted as part of the analysis, however final products do not necessarily reflect an assessment from any specific department.

**OFA Fiscal Note**

**State Impact:**

| Agency Affected                                  | Fund-Effect | FY 22 \$ | FY 23 \$ |
|--|-------------|----------|----------|
| State Comptroller - Fringe Benefits <sup>1</sup> | GF - Cost   | 81,000   | 85,000   |
| Public Health, Dept.                             | GF - Cost   | 308,000  | 206,000  |

Note: GF=General Fund

**Municipal Impact:**

| Municipalities                              | Effect                            | FY 22 \$  | FY 23 \$  |
|---|-----------------------------------|-----------|-----------|
| Various Local and Regional School Districts | STATE MANDATE <sup>2</sup> - Cost | See Below | See Below |

**Explanation**

This bill makes various changes affecting indoor air quality in school facilities. The bill requires the Department of Public Health (DPH) to establish a routine indoor air quality monitoring program by June 30, 2022 for local and regional boards of education and requires these boards of education to meet a number of air quality standards. This results in a state mandate and significant costs to local and regional school districts that are not currently in compliance, as well as a

<sup>1</sup>The fringe benefit costs for most state employees are budgeted centrally in accounts administered by the Comptroller. The estimated active employee fringe benefit cost associated with most personnel changes is 41.3% of payroll in FY 22 and FY 23.

<sup>2</sup> State mandate is defined in Sec. 2-32b(2) of the Connecticut General Statutes, "state mandate" means any state initiated constitutional, statutory or executive action that requires a local government to establish, expand or modify its activities in such a way as to necessitate additional expenditures from local revenues.

significant cost to DPH.

The bill requires local and regional boards of education to ensure that its heating, ventilation, and air conditioning system (HVAC) is maintained and operated in accordance with Standard 62. Current law requires HVAC systems to comply with the prevailing standard, which may be Standard 62, at the time the system is installed or renovated. Schools that are not in compliance with Standard 62 will incur significant costs. It is estimated that schools that are not in compliance and have not been recently renovated could face costs up to \$1 million per school, plus engineering and ongoing maintenance costs to ensure that the HVAC systems are in compliance with Standard 62.

Additionally, the bill requires that school boards must maintain each of its school's gymnasiums at an indoor temperature between 65 and 85 degrees Fahrenheit while students are using it or close it for the day if the school cannot meet the temperature requirements for more than two consecutive hours. This will result in significant costs associated with air conditioning gymnasiums. It estimated that air conditioning a high school gym could be up to \$500,000, up to \$300,000 for a middle school, and up to \$150,000 for an elementary school gym, plus annual maintenance and energy costs.

The costs to schools could be incurred in either FY 22 or FY 23 as the standards must be met by FY 23. The ongoing maintenance and operating costs would be incurred in the outyears.

This bill will result in significant costs to DPH. DPH does not have the expertise in indoor air monitoring and HVAC system operation and maintenance. DPH would need to hire a consultant to create the indoor air monitoring program for the local and regional boards of education. The estimated cost of hiring a consultant to develop the indoor air monitoring program is \$110,000. This one-time cost would be incurred in FY 22. In addition, DPH will need to hire two Epidemiologists at a total cost of \$198,000 in FY 22 and \$206,000 in FY 23 (plus fringe benefits) to oversee consultant work, review the indoor air monitoring program, establish reporting requirements for the indoor air monitoring program,

establish and oversee the contractor certification program, and manage a database necessary to track certification program and correction plan compliance.

***The Out Years***

The annualized ongoing fiscal impact identified above would continue into the future subject to inflation.



**OLR Bill Analysis****SB 288*****AN ACT CONCERNING INDOOR AIR QUALITY IN SCHOOLS.*****SUMMARY**

This bill makes various changes affecting indoor air quality in school facilities. It requires local and regional boards of education (hereafter “school boards”) to ensure that their HVAC (heating, ventilation, and air conditioning) systems are maintained and operated in accordance with Standard 62 (see BACKGROUND). Current law requires HVAC systems to comply with the prevailing standard, which may be Standard 62, when the system is installed or renovated.

The bill also requires school boards to close a school for the day if Standard 62 cannot be maintained for two or more consecutive school activity hours (i.e., any time of day in which students or school personnel occupy a school facility throughout the year).

Under the bill, school boards must maintain each of its school’s gymnasiums at an indoor temperature between 65 and 85 degrees Fahrenheit while students are using it or close it for the day if the school cannot meet the temperature requirements for more than two consecutive hours.

Additionally, the bill requires:

1. the Department of Public Health (DPH) to (a) establish a routine indoor air quality monitoring program by June 30, 2022, for school boards; (b) review and approve the program triennially, starting by June 30, 2025; and (c) establish related reporting requirements by June 30, 2023;
2. school boards to implement the DPH program in their schools by

June 30, 2023, and allows school boards, under certain circumstances, to transfer the program's execution to their regional council of government;

3. (a) DPH to establish a voluntary contractor certification program for school indoor air quality services and (b) school boards to contract only with DPH-certified contractors for school indoor air quality services starting June 30, 2023;
4. school superintendents, by December 31, 2021, to designate an individual within each school board to be responsible for receiving complaints about poor indoor air quality at school facilities and report the complaints to the superintendent; and
5. school boards to participate in the federal Environmental Protection Agency's (EPA) Air Quality Flag Program by June 30, 2022 (see BACKGROUND).

EFFECTIVE DATE: July 1, 2021

## **INDOOR AIR QUALITY MONITORING PROGRAM**

### ***Program Establishment***

The bill requires DPH to establish a routine indoor air quality monitoring program (i.e., testing procedures, protocols, and frequency) for school boards to use that is consistent with Standard 62 and approved by (1) a scientist with expertise in indoor air quality and (2) an industry professional with knowledge of and experience with Standard 62. The department must post the program's details on its website.

Starting by June 30, 2025, DPH must triennially review and approve the program to ensure its efficacy.

### ***Program Implementation***

The bill requires school boards to implement the DPH monitoring program in each of their schools. It permits a school board to transfer the program's execution to its regional council of government, with the

approval of DPH and the council. If the school board makes such a transfer, it must retain legal and fiscal responsibility for implementing the program.

### **Reporting Requirements**

The bill requires DPH, by June 30, 2023, to establish reporting requirements for school boards to ensure the program is in effect at each of their school facilities during school activity hours.

### **Voluntary Contractor Certification**

Under the bill, DPH must establish a voluntary contractor certification program for school facility indoor air quality services by June 30, 2023.

The bill requires school boards who contract for indoor air quality services on or before June 30, 2023, to do so only with DPH-certified contractors starting by this date.

## **INDOOR AIR QUALITY COMPLAINTS**

The bill requires each school superintendent, by December 31, 2021, to:

1. designate an individual within the school board to (a) receive complaints about poor indoor air quality in a school facility, including evidence of mold, pest infestation, or hazardous odors or chemicals, and (b) report the complaints to the superintendent;
2. make the procedure to file an air quality complaint available on the school district's website;
3. forward complaints received to the president of any bargaining unit whose members may be affected by the reported condition; and
4. report complaints to the superintendent's school board at the next regularly scheduled meeting.

Under the bill, school boards must investigate any complaint filed

and determine whether a health hazard exists (the bill does not define this term). If it does, they must then notify the federal Department of Labor’s Occupational Safety and Health Administration (OSHA) and develop and implement a remediation plan. School boards must submit remediations plans to DPH for approval, in a manner the commissioner prescribes.

The bill defines a “school facility” as any permanent or portable building, structure, or commercial space that a school board owns, rents, operates, or leases. It includes (1) donated space used as a classroom or day care and (2) any other space for education services, including classrooms, cafeterias, staff lounges and offices, auditoriums, gymnasiums, and libraries.

**BACKGROUND**

***EPA Air Quality Flag Program***

This program uses colored flags based on the EPA’s Air Quality Index to notify teachers, students, and school personnel about outdoor air quality concerns. Schools raise a colored flag each day that corresponds to their local air quality forecast. For example, a green flag indicates good air quality, while an orange flag indicates the air quality is unhealthy for sensitive groups, such as students with respiratory conditions.

***Standard 62***

The American Society of Heating, Ventilating, and Air Conditioning Engineers’ Standard 62, “Ventilation for Acceptable Indoor Air Quality” is incorporated into the State Building Code and includes minimum ventilation rates and other measures for buildings to ensure indoor air quality that is safe for occupants and minimizes adverse health effects.

**COMMITTEE ACTION**

Public Health Committee

Joint Favorable  
Yea 33    Nay 0    (03/29/2021)