

HOUSE BILL 686

M3, F1

2lr1295

By: **Delegates Solomon, Boyce, Carr, Charles, Forbes, Fraser–Hidalgo, Kelly, Lehman, Love, Luedtke, Palakovich Carr, Ruth, Shetty, Stewart, Terrasa, Valentino–Smith, Wilkins, and P. Young**

Introduced and read first time: January 31, 2022

Assigned to: Environment and Transportation and Appropriations

A BILL ENTITLED

1 AN ACT concerning

2 **Public Schools – Health and Safety – Carbon Dioxide Monitoring in Classrooms**
3 **(Safe School Indoor Air Act)**

4 FOR the purpose of establishing the Safe School Indoor Air Program in the Maryland
5 Department of the Environment; requiring the Department, in consultation with the
6 State Department of Education, to administer the Program; requiring public schools
7 to monitor carbon dioxide levels in classrooms in a certain manner and under certain
8 circumstances; requiring each county board of education to develop a certain policy
9 and implementation plan; and generally relating to monitoring carbon dioxide levels
10 in public school classrooms.

11 BY adding to

12 Article – Environment

13 Section 2–1601 through 2–1607 to be under the new subtitle “Subtitle 16. Safe School
14 Indoor Air Program”

15 Annotated Code of Maryland

16 (2013 Replacement Volume and 2021 Supplement)

17 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND,
18 That the Laws of Maryland read as follows:

19 **Article – Environment**

20 **SUBTITLE 16. SAFE SCHOOL INDOOR AIR PROGRAM.**

21 **2–1601.**

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.

[Brackets] indicate matter deleted from existing law.



1 (A) IN THIS SUBTITLE THE FOLLOWING WORDS HAVE THE MEANINGS
2 INDICATED.

3 (B) "COUNTY BOARD" HAS THE MEANING STATED IN § 1-101 OF THE
4 EDUCATION ARTICLE.

5 (C) "EFFECTIVE AIR RATE CHANGE" MEANS THE SUM OF THE OUTSIDE
6 VENTILATION RATE, THE PORTABLE HEPA FILTRATION RATE, AND HVAC
7 RECIRCULATION FLOWS WITH MINIMUM EFFICIENCY REPORTING VALUE (MERV)
8 13+ FILTERS IN A CLASSROOM.

9 (D) "ELEVATED CARBON DIOXIDE READING" MEANS A CARBON DIOXIDE
10 READING IN A CLASSROOM THAT IS 2,000 PARTS PER MILLION OR MORE.

11 (E) "HVAC SYSTEM" MEANS A HEATING, VENTILATION, AND
12 AIR-CONDITIONING SYSTEM.

13 (F) "PARTICLE REMOVAL PROCESSES" INCLUDES PORTABLE HEPA ONLY
14 FILTERS AND MINIMUM EFFICIENCY REPORTING VALUE (MERV) 13+ FILTERS IN
15 RECIRCULATING HVAC SYSTEMS.

16 (G) "PROGRAM" MEANS THE SAFE SCHOOL INDOOR AIR PROGRAM.

17 2-1602.

18 (A) THERE IS A SAFE SCHOOL INDOOR AIR PROGRAM IN THE
19 DEPARTMENT.

20 (B) THE DEPARTMENT, IN CONSULTATION WITH THE STATE DEPARTMENT
21 OF EDUCATION, SHALL ADMINISTER THE PROGRAM.

22 (C) THE PURPOSE OF THE PROGRAM IS TO IMPROVE INDOOR AIR QUALITY
23 IN PUBLIC SCHOOL CLASSROOMS.

24 2-1603.

25 (A) THE DEPARTMENT, IN CONSULTATION WITH RECOGNIZED INDOOR AIR
26 QUALITY EXPERTS, SHALL DEVELOP AND CONDUCT A TRAINING ON CARBON
27 DIOXIDE MONITORING IN CLASSROOMS.

28 (B) EACH PUBLIC SCHOOL SHALL DESIGNATE AT LEAST THREE SCHOOL
29 PERSONNEL TO:

1 **(1) TAKE THE TRAINING ESTABLISHED IN SUBSECTION (A) OF THIS**
2 **SECTION; AND**

3 **(2) CONDUCT CARBON DIOXIDE MONITORING IN CLASSROOMS AS**
4 **REQUIRED BY THIS SUBTITLE.**

5 **(C) THE CARBON DIOXIDE MONITORING REQUIRED BY THIS SUBTITLE MAY**
6 **BE CONDUCTED BY:**

7 **(1) SCHOOL PERSONNEL WHO ARE TRAINED IN ACCORDANCE WITH**
8 **THIS SECTION; OR**

9 **(2) AN INDIVIDUAL OR COMPANY THE PUBLIC SCHOOL OR COUNTY**
10 **BOARD CONTRACTS WITH TO PROVIDE CARBON DIOXIDE MONITORING SERVICES.**

11 **2-1604.**

12 **(A) (1) SUBJECT TO SUBSECTIONS (B) AND (C) OF THIS SECTION, A**
13 **PUBLIC SCHOOL SHALL ENSURE THAT EACH CLASSROOM IN THE SCHOOL IS**
14 **MONITORED FOR CARBON DIOXIDE AT LEAST TWICE EACH SCHOOL YEAR.**

15 **(2) THE CARBON DIOXIDE MONITORING REQUIRED BY PARAGRAPH**
16 **(1) OF THIS SUBSECTION SHALL BE CONDUCTED:**

17 **(I) AT LEAST 3 MONTHS APART, WITH AT LEAST ONE**
18 **MEASUREMENT DURING THE COOLING SEASON AND AT LEAST ONE MEASUREMENT**
19 **DURING THE HEATING SEASON; AND**

20 **(II) FOR AN ENTIRE SCHOOL DAY WHILE THE CLASSROOM IS**
21 **FULLY OCCUPIED.**

22 **(B) (1) IF A CLASSROOM HAS A CARBON DIOXIDE READING THAT IS AT**
23 **LEAST 1,200 PARTS PER MILLION BUT LESS THAN 2,000 PARTS PER MILLION, THE**
24 **CLASSROOM SHALL BE INSPECTED TO ENSURE THAT:**

25 **(I) AT LEAST ONE PARTICLE REMOVAL PROCESS IS PRESENT**
26 **AND WORKING CORRECTLY; AND**

27 **(II) THE VENTILATION SYSTEMS ARE WORKING**
28 **APPROPRIATELY AS DESIGNED.**

29 **(2) IF A CLASSROOM FAILS THE INSPECTION REQUIRED UNDER**
30 **PARAGRAPH (1) OF THIS SUBSECTION AND REQUIRES REMEDIATION, THE**

1 CLASSROOM SHALL RECEIVE AN ADDITIONAL CARBON DIOXIDE MONITORING AFTER
2 THE REMEDIATION MEASURES HAVE TAKEN PLACE.

3 (C) (1) IF A CLASSROOM HAS AN ELEVATED CARBON DIOXIDE READING,
4 THE SCHOOL SHALL TAKE THE FOLLOWING REMEDIATION MEASURES:

5 (I) WITHIN 1 MONTH OF THE DATE OF THE CARBON DIOXIDE
6 MONITORING, NOTIFY THE SCHOOL COMMUNITY THAT USES THE CLASSROOM OF:

7 1. THE RESULTS OF THE CARBON DIOXIDE MONITORING;
8 AND

9 2. THE PLANNED REMEDIATION MEASURES THAT WILL
10 BE TAKEN IN THE CLASSROOM;

11 (II) EXCEPT AS PROVIDED IN PARAGRAPH (2) OF THIS
12 SUBSECTION, WITHIN 3 MONTHS OF THE DATE OF THE CARBON DIOXIDE
13 MONITORING THE SCHOOL SHALL IMPLEMENT TEMPORARY REMEDIATION
14 MEASURES, INCLUDING:

15 1. ADDING EXHAUST FANS OR ADDITIONAL AIR FILTERS
16 TO THE CLASSROOM; AND

17 2. ADJUSTING ACTIVITY DENSITY IN THE CLASSROOM;
18 AND

19 (III) IN ACCORDANCE WITH THE POLICY AND IMPLEMENTATION
20 PLAN ESTABLISHED UNDER § 2-1605 OF THIS SUBTITLE:

21 1. INSPECT THE CLASSROOM; AND

22 2. WITHIN 1 YEAR FROM THE DATE OF THE CARBON
23 DIOXIDE MONITORING, PUT PERMANENT REMEDIATION MEASURES IN PLACE IN
24 CLASSROOMS WITH ELEVATED CARBON DIOXIDE READINGS, INCLUDING REPLACING
25 OR REPAIRING THE MECHANICAL VENTILATION SYSTEMS OR ADDING ADDITIONAL
26 MECHANICAL VENTILATION SYSTEMS TO THE CLASSROOM.

27 (2) IF THE DATE OF THE CARBON DIOXIDE READING IS DURING THE
28 LAST 3 MONTHS OF THE SCHOOL YEAR, THEN THE SCHOOL SHALL IMPLEMENT
29 TEMPORARY REMEDIATION MEASURES BY THE BEGINNING OF THE IMMEDIATELY
30 FOLLOWING SCHOOL YEAR.

1 **(3) A CLASSROOM THAT HAS AN ELEVATED CARBON DIOXIDE**
2 **READING SHALL:**

3 **(I) BE RETESTED EVERY 4 MONTHS UNTIL THE CLASSROOM**
4 **RECEIVES A CARBON DIOXIDE READING BELOW 2,000 PARTS PER MILLION; AND**

5 **(II) CONTINUE WITH CARBON DIOXIDE MONITORING TWICE PER**
6 **YEAR AFTER THE CLASSROOM RECEIVES A CARBON DIOXIDE READING BELOW 2,000**
7 **PARTS PER MILLION.**

8 **(4) A PUBLIC SCHOOL SHALL REPEAT THE REQUIREMENTS OF THIS**
9 **SUBSECTION EACH TIME A CLASSROOM HAS AN ELEVATED CARBON DIOXIDE**
10 **READING.**

11 **2-1605.**

12 **(A) ON OR BEFORE JUNE 1, 2023, EACH COUNTY BOARD SHALL DEVELOP A**
13 **POLICY AND IMPLEMENTATION PLAN THAT DESCRIBES HOW INSPECTIONS AND**
14 **REMEDICATION OF CLASSROOMS THAT HAVE RECEIVED AN ELEVATED CARBON**
15 **DIOXIDE READING SHOULD OCCUR, INCLUDING WHO IS RESPONSIBLE FOR**
16 **SCHOOL-LEVEL HVAC SYSTEMS.**

17 **(B) EACH COUNTY BOARD SHALL SUBMIT A WRITTEN PLAN TO THE**
18 **DEPARTMENT WITHIN 1 YEAR OF THE ADOPTION OF THE POLICY AND**
19 **IMPLEMENTATION PLAN.**

20 **2-1606.**

21 **(A) ON OR BEFORE NOVEMBER 1 EACH YEAR, EACH PUBLIC SCHOOL SHALL**
22 **REPORT TO THE COUNTY BOARD THE FOLLOWING INFORMATION ABOUT EACH**
23 **CLASSROOM IN EACH BUILDING ON THE PREMISES OF THE SCHOOL:**

24 **(1) THE MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF THE**
25 **HVAC SYSTEM AIR FILTER SERVING ANY PORTABLE HEPA ONLY FILTERS IN THE**
26 **CLASSROOM;**

27 **(2) THE TOTAL NUMBER OF EFFECTIVE AIR CHANGE RATES PER**
28 **HOUR; AND**

29 **(3) THE MAXIMUM CARBON DIOXIDE CONCENTRATION READING OF**
30 **THE CLASSROOM:**

31 **(I) FROM THE CURRENT SCHOOL YEAR; AND**

1 (II) FROM THE IMMEDIATELY PRECEDING SCHOOL YEAR TAKEN
2 BETWEEN DECEMBER 1 AND MARCH 30.

3 (B) ON OR BEFORE DECEMBER 15 EACH YEAR, EACH COUNTY BOARD
4 SHALL:

5 (1) COMPILE THE INFORMATION REPORTED UNDER SUBSECTION (A)
6 OF THIS SECTION;

7 (2) SEND THE INFORMATION TO THE DEPARTMENT AND THE STATE
8 DEPARTMENT OF EDUCATION;

9 (3) MAKE THE INFORMATION AVAILABLE ON THE COUNTY BOARD'S
10 WEBSITE; AND

11 (4) SEND NOTIFICATION TO THE SCHOOL COMMUNITY THAT
12 INCLUDES:

13 (I) BACKGROUND INFORMATION ON INDOOR AIR QUALITY;

14 (II) THE RESULTS OF ALL CARBON DIOXIDE MONITORING
15 CONDUCTED IN THE SCHOOL; AND

16 (III) IF APPLICABLE, ANY REQUIRED REMEDIATION MEASURES
17 TAKEN AT THE SCHOOL RELATING TO INDOOR AIR QUALITY.

18 2-1607.

19 THE DEPARTMENT, IN CONSULTATION WITH THE STATE DEPARTMENT OF
20 EDUCATION, SHALL ADOPT REGULATIONS TO CARRY OUT THIS SECTION.

21 SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect July
22 1, 2022.