

**HOUSE . . . . . No. 1466**

---

**The Commonwealth of Massachusetts**

PRESENTED BY:

***William N. Brownsberger***

*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:*

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

**An Act relative to air quality in schools and public buildings.**

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
<i>William N. Brownsberger</i>		<i>1/20/2011</i>
<i>John P. Fresolo</i>	<i>16th Worcester</i>	<i>1/29/2011</i>
<i>Sal N. DiDomenico</i>	<i>Middlesex and Suffolk</i>	<i>1/31/2011</i>
<i>Peter V. Kocot</i>	<i>1st Hampshire</i>	<i>2/2/2011</i>
<i>Frank I. Smizik</i>	<i>15th Norfolk</i>	<i>2/3/2011</i>
<i>Alice K. Wolf</i>	<i>25th Middlesex</i>	<i>2/4/2011</i>
<i>Brian M. Ashe</i>	<i>2nd Hampden</i>	<i>2/4/2011</i>
<i>Jonathan Hecht</i>	<i>29th Middlesex</i>	<i>2/4/2011</i>

**HOUSE . . . . . No. 1466**

By Mr. Brownsberger of Belmont, a petition (accompanied by bill, House, No. 1466) of William N. Brownsberger and others relative to the regulation of air quality in schools and public buildings. Public Health.

**The Commonwealth of Massachusetts**

**In the Year Two Thousand Eleven**

An Act relative to air quality in schools and public buildings.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1 SECTION 1.

2 The General Laws are hereby amended by inserting after chapter 111K the following  
3 chapter:-

4 Chapter 111L - Indoor Air Quality

5 Section 2. Definitions.

6 As used in this Act, the following words shall, unless a different meaning clearly  
7 appears from the context, have the following meanings:

8 Act means this statute.

9 Air contaminants includes but is not limited to: (a) volatile organic and inorganic  
10 compounds including, but not limited to, vapors from paint, cleaning products, chemicals,  
11 pesticides and solvents; (b) carbon monoxide; (c) particulates; (d) outdoor air pollutants; (e)

12 biological contaminants; and (f) other airborne substances, which may affect the health of  
13 building occupants.

14 Building occupant means any person who works or transacts business in or otherwise  
15 occupies a public building including but not limited to a person who is an employee of the  
16 building owner.

17 Building systems include but are not limited to the HVAC system, systems providing  
18 sanitary services, plumbing, and potable water, the energy management system and all other  
19 systems in a public building which may impact the quality of the indoor environment.

20 Commissioner means the Commissioner of the Division of Occupational Safety of the  
21 Department of Labor and Workforce Development or his/her designee.

22 Control means the power to direct, regulate or manage the thing controlled, whether  
23 directly or indirectly.

24 Designated person means a person who has been given the responsibility by the  
25 building owner to take necessary measures to assure compliance with sections 4 ff of this Act.

26 Director means the Director of the Division of Indoor Environments, or his/her  
27 designee.

28 Division of Occupational Safety means the Division of Occupational Safety of the  
29 Department of Labor and Workforce Development.

30 HVAC system means the collective components of the entire heating, ventilation and  
31 air conditioning systems including mechanical and non-mechanical systems.

32           Public Building means any building, or any portion of any building, owned, leased or  
33 operated by the Commonwealth, its agencies, authorities or political subdivisions, or any  
34 building or any portion of any building which houses a program or activity for which 85% of the  
35 funding is provided by the Commonwealth, its agencies, authorities or political subdivisions;  
36 provided, how- ever, that "public building" shall not include correctional facilities (as defined in  
37 M.G.L. c.125, s. 1), jails, prisons, reformatories, custodial facilities in the department of youth  
38 services, and dormitories and residential facilities subject to 105 CMR 410.

39           Person means an individual, partnership, corporation, association, and the  
40 Commonwealth, including its agencies, authorities, subdivisions and legal representatives or  
41 agents.

42           Renovation means building modification involving activities that include but are not  
43 limited to: installation, removal or replacement of roofs, walls, ceilings, floors, carpeting, and  
44 components such as moldings, cabinets, doors, and windows; painting, decorating, demolition,  
45 surface refinishing, removal or cleaning of ventilation ducts, additions to, replacement of or  
46 modifications to entrances and exits, and stairways and elevators and any other substantial  
47 modification of any of a public building's systems.

48           Representatives of building occupants means (a) employee organizations; (b) other  
49 representatives or agents designated in writing as such by individuals employed in or occupying  
50 a public building; (c) parents organizations and other representatives of students in schools; and  
51 (d) legal guardians of building occupants who have not reached the age of majority.  
52 "Representatives of building occupants" does not include representatives of the general public  
53 who use a public building on an intermittent basis.

54 Section 3. Division of Indoor Environments.

55 (a) There shall be within the Department of Public Health a Division of Indoor  
56 Environments within the Center for Environmental Health. The Commissioner of the Department  
57 of Public Health shall appoint the Director of the Division of Indoor Environments.

58 (b) The Division of Indoor Environments shall administer and enforce the provisions  
59 of this Act.

60 (c) When the building occupant is an employee of the building owner, the Division of  
61 Occupational Safety also shall have the power to administer and enforce the provisions of this  
62 Act.

63 (d) The Department of Public Health, in consultation with the Division of  
64 Occupational Safety, shall promulgate such regulations as are required by this Act as well as  
65 such regulations it deems will aid the efficient and effective implementation of this Act and the  
66 standards and procedures for which this Act provides. The Director, in consultation with the  
67 Commissioner, shall propose to the Commissioner of Public Health such regulations as the  
68 Director may, from time to time, determine are necessary for this purpose. As an aid in  
69 considering said regulations, the Commissioner of Public Health shall have access to the research  
70 and resources and seek the advice of the various divisions and programs in the Department of  
71 Public Health and the Division of Occupational Safety concerned with similar issues.

72 (e) The Division of Occupational Safety shall adopt all such regulations promulgated  
73 by the Department of Public Health as relate to sections 7, 9, 10, 11, 12 hereof within 90 days of  
74 their promulgation by the Department of Public Health.

75 (f) Nothing in this section shall limit the powers granted to and responsibilities  
76 imposed upon the Division of Occupational Safety by Chapter 149 of the General Laws.

77 Section 4. Access to Buildings and Records by the Division.

78 (a) For the purpose of administering the provisions of this Act, the Director shall have  
79 access and entry at reasonable times to the premises of any public building to investigate  
80 compliance with this Act. When the building owner is the employer of some or all of the  
81 building occupants, the Commissioner shall have access and entry at reasonable times to the  
82 premises of a public building to investigate compliance with this Act. If a building owner or  
83 anyone acting on its behalf or as its agent refuses or fails to comply with a request by either of  
84 the Director or the Commissioner for access to a public building, the supreme judicial or superior  
85 court shall have jurisdiction to order compliance.

86 (b) For the purpose of enforcing the provisions of this Act, a building owner shall,  
87 upon the request of the Director, permit the Director, at reasonable times, to have access to and  
88 to copy all records related to this Act or its enforcement. When the building owner is the  
89 employer of some or all of the building occupants, the building owner shall, upon the request of  
90 the Commissioner, permit the Commissioner, at reasonable times, to have access to and to copy  
91 all records related to this Act or its enforcement. If a building owner or anyone on in its behalf or  
92 as its agent refuses or fails to comply with such a request by either said Director or said  
93 Commissioner, the superior court shall have jurisdiction to order compliance.

94 (c) Any person who obstructs the Director or the Commissioner in the performance of  
95 the duties described subsections (a) or (b) of this section 4 shall be punished by a fine of not less

96 than one thousand and no more than five thousand dollars or by imprisonment for not more than  
97 six months, or both, for each instance of the offense.

98 Section 5. Indoor Environmental Compliance Program.

99 Within one year of the effective date of this Act, each building owner shall establish  
100 for each public building under its control a written indoor environmental compliance program  
101 which shall contain the information and documents required by section 6, and which shall  
102 contain procedures for implementing the actions and standards contained in sections 7, 8 and 9.  
103 Each building owner shall identify in its indoor environmental compliance program a designated  
104 person who shall be responsible for the day-to-day implementation of the indoor environment  
105 compliance program and for all recordkeeping responsibilities connected therewith. A copy of  
106 the indoor environmental compliance program shall be kept in said public building and be  
107 available to the public for inspection and, in addition, available electronically, wherever possible.

108 Section 6. Information to be included in Indoor Environmental Compliance Program.

109 Indoor environment compliance programs shall include, at a minimum, the following  
110 information:

111 (a) A written narrative description of the facility's building systems;

112 (b) Single-line schematics or as-built construction documents which locate major  
113 building system equipment and the areas that they serve;

114 (c) Information relating to the daily operation and management of the building  
115 systems, which shall include, at a minimum, a description of all normal operating procedures,  
116 special procedures such as seasonal start-ups and shutdowns, and a list of operating performance

117 criteria including, but not limited to minimum outside air ventilation rates, potable hot water  
118 storage and delivery temperatures, range of relative humidity, and any space pressurization  
119 requirements;

120 (d) A general description of the building and its function including but not limited to,  
121 work activity, number of employees and visitors, hours of operation, weekend use, and known  
122 air contaminants released in the building;

123 (e) As-built construction documents, HVAC system commissioning reports, HVAC  
124 systems testing, adjusting and balancing reports, operations and maintenance manuals, water  
125 treatment logs, and operator training materials;

126 (f) A written maintenance program for the building systems, which shall be  
127 preventive in scope and reflect equipment manufacturers' recommendations and best practices as  
128 determined by the building systems maintenance industry. At a minimum, the maintenance  
129 program shall describe the equipment to be maintained, and establish maintenance procedures  
130 and frequency of performance; and

131 (g) A checklist for the visual inspection of building systems that accords with the  
132 regulations promulgated by the Department of Public Health.

### 133 Section 7. Complaints.

134 Each building owner shall establish procedures for receiving and responding to  
135 reports and complaints from building occupants and building occupant representatives regarding  
136 building conditions, the indoor environment and building maintenance. Where the Department of  
137 Public Health has promulgated regulations or where the Division of Indoor Environments has

138 established standard procedures and forms for the above, each building owner shall use the  
139 relevant procedures and forms. Building owners shall maintain a written record of all reports and  
140 complaints they receive from building occupants and the remedial actions, if any, taken to  
141 respond to the reports and complaints.

142           Section 8. Reporting Building-Related Illnesses.

143           Each building owner shall establish procedures for receiving reports from building  
144 occupants regarding symptoms or illnesses that may be related to conditions in a public building.  
145 Each building owner shall maintain a written record of such reports which shall include, at a  
146 minimum, information on the nature of the symptom or illness reported, the number of building  
147 occupants affected, the date of each report was received from a building occupant, and the  
148 remedial action, if any, taken to correct the source of the problem, or any other response to the  
149 report.

150           Section 9. Inspections.

151           Each building owner shall perform a visual inspection annually and a thorough  
152 building condition survey every five years of each public building under its control for  
153 compliance with the standards promulgated by the Division of Indoor Environments pursuant to  
154 section 10 of this Act. The five-year building condition survey shall be conducted by an  
155 independent licensed architect or engineer or other appropriately qualified professional. Within  
156 six months of the effective date of this Act, the Department of Public Health shall promulgate  
157 regulations containing the standard procedures to be followed in the performance of the visual  
158 inspection and the five-year building condition survey. The annual visual inspection shall, at a  
159 minimum, consider the following:

- 160 (a) The building site, including utilities, paving, playgrounds, and play fields.
- 161 (b) Roofing.
- 162 (c) Exterior elements of the building, including walls, doors, windows, fire escapes.
- 163 (d) Building structural elements.
- 164 (e) Building interiors, including finishes, doors, and hardware.
- 165 (f) Special construction, including stairs, elevators, escalators, and swimming pools.
- 166 (g) Environmental features, including appearance, cleanliness, acoustics, lighting  
167 quality, thermal comfort, humidity, ventilation and space adequacy.
- 168 (h) Complaints and medical reports received by the building owner pursuant to this  
169 Act since the last annual and five-year building condition survey.

170 The five-year building condition survey shall, at a minimum, consider the following:

- 171 (a) The building site, including utilities, paving, playgrounds, and play fields.
- 172 (b) Roofing.
- 173 (c) Exterior elements of the building, including walls, doors, windows, fire escapes.
- 174 (d) Building structural elements.
- 175 (e) Building interiors, including finishes, doors, and hardware.
- 176 (f) Electrical systems, including service and distribution, lighting, communications,  
177 technology infrastructure and cabling.

- 178 (g) Plumbing, including water distribution systems, drainage and fixtures.
- 179 (h) Heating and cooling systems, including boilers, furnaces, terminal units, and  
180 control systems.
- 181 (i) Ventilation systems.
- 182 (j) Air conditioning systems, including refrigeration, terminal units, and control  
183 systems.
- 184 (k) Special construction, including stairs, elevators, escalators, and swimming pools.
- 185 (l) Fire protection and security systems, including alarm, detection, and fire  
186 protection.
- 187 (m) Environmental features, including appearance, cleanliness, acoustics, lighting  
188 quality, thermal comfort, humidity, ventilation and space adequacy.
- 189 (n) Complaints and medical reports received by the building owner pursuant to this  
190 Act since the last annual visual inspection and five-year building condition survey, as  
191 appropriate.

192 Each building owner shall publish the results of each annual and five-year building  
193 condition survey on its public web site or, if such a site does not exist, as a written report that it  
194 shall make available to the public. Each building owner shall e-mail each such report within  
195 thirty days of its completion to the Director and where the building owner is also an employer of  
196 some or all of the building occupants, also to the Commissioner. The Director shall cause each  
197 such report to be published on the Department of Public Health's web site where it shall remain

198 for at least five years. The Commissioner shall cause each such report he receives to be  
199 published on the Division of Occupation Safety's web site

200 269 where it shall remain for at least five years. Building owners shall keep records of  
201 annual inspections and five year building condition surveys for at least ten years.

202 Section 10. Standards.

203 Within six months of the effective date of this Act, the Department of Public Health,  
204 shall promulgate regulations establishing indoor environmental standards for each of the subjects  
205 listed below. Within six months of the promulgation of said standards, each building owner shall  
206 take the actions required by said standards in each public building under its control and  
207 incorporate means for implementing each standard within the indoor environmental compliance  
208 program for each said public building.

209 (a) The maintenance and operation of HVAC systems.

210 (b) Ventilation of point sources of contaminants.

211 (c) Humidity.

212 (d) Heating.

213 (e) Air exchange.

214 (f) Ventilation of buildings without mechanical ventilation systems.

215 (g) Maintenance of non-ducted air plenums.

216 (h) Storage of hazardous materials.

- 217 (i) Asbestos.
- 218 (j) Fiberglass.
- 219 (k) Lead paint
- 220 (l) Outdoor air contaminants.
- 221 (m) Water intrusion.
- 222 (n) Microbial contamination.
- 223 (o) Cleaning.
- 224 (p) Building entrances and exits.
- 225 (q) Sound levels.
- 226 (r) Light levels.
- 227 (s) Sanitary facilities.
- 228 (t) Potable water.
- 229 (u) Protective equipment and training for maintenance workers and custodians.
- 230 (v) Procedures and forms for implementing section 7 of this Act.

231 Section 11. Hazardous Chemicals.

232 Each building owner shall evaluate any hazardous substances or chemicals currently  
233 in use in a public building under its control and maintain an inventory of the same. Each building  
234 owner shall assure that each such substance or chemical is the least toxic alternative feasible for

235 the purpose for which it is intended. Each building owner shall assure for each public building  
236 under its control that cleaning and maintenance chemicals, pesticides, and other hazardous  
237 substances are used and applied according to the relevant manufacturers' recommendations and  
238 material safety data sheets, and shall post notices in clear sight in areas to be treated with  
239 potentially hazardous substances at least 24 hours prior to application. Said notices shall include  
240 information of the identity of substances intended to be applied and any precautions that should  
241 be taken by occupants in those areas. The requirements of this section 11 are in addition to the  
242 requirements established by G.L. c. 111F, c. 132B and other applicable statutes and regulations.

243 Section 12. Renovations.

244 Whenever a public building is renovated while continuing to be occupied, the  
245 building owner shall take such measures as are needed to assure that the indoor environment  
246 experienced by building occupants is not degraded during the renovation as a result of activities  
247 or products used in work sites or from any other cause related to the renovation. Such measures  
248 shall include, but not be limited to the following:

249 (a) Except in emergencies, the building owner shall provide notice to occupants and  
250 the representatives of building occupants of the renovations, including a description of their  
251 scope and timing. In the case of emergencies, such notice shall be provided as soon as reasonably  
252 possible.

253 (b) Before renovation or similar activities are begun, the building owner, together  
254 with representatives of building occupants, shall meet with the contractor or individual(s)  
255 performing the work and shall develop and implement a work plan designed to prevent the entry

256 of air contaminants into occupied areas of the building during and after the performance of the  
257 work.

258 (c) At a minimum, the work plan shall provide for:

259 (i) the continued effective functioning of the HVAC systems in the occupied portions  
260 of the building during the renovation;

261 (ii) isolation of work areas from the occupied portions of the building and appropriate  
262 negative pressure containment;

263 (iii) air contaminant suppression controls and/or auxiliary air filtration/cleaning  
264 within the occupied portions of the building;

265 (iv) controls to prevent air contaminant entry into the HVAC air distribution system;

266 (v) measures to minimize the impact of noise or vibration from the renovation on the  
267 occupied parts of the building;

268 (vi) measures to ensure that all building materials and furnishings are kept dry before  
269 they are installed or used in the building;

270 (vii) augmented cleaning in occupied parts of the building during the renovation  
271 project;

272 (viii) measures for maintaining adequate heat in the occupied portions of the building;

273 (ix) the identity and contact information of the person responsible for complying with  
274 this section of the Act;

275 (x) regular public posted notices of scheduled renovation activities, and

276 (xi) emergency procedures, including a plan for evacuating occupants from the  
277 building.

278 Section 13. Recordkeeping.

279 (a) Maintenance records. Each building owner shall maintain the inspection and  
280 maintenance records required by this Act, which shall include the specific remedial or  
281 maintenance actions taken, the name and affiliation of the individual performing the work, and  
282 the date of the inspection or maintenance activity.

283 (b) Complaints and Reports of Illnesses. The building owner shall maintain a record  
284 of building occupant complaints and reports of illnesses or symptoms that may be associated  
285 with public building conditions in accordance with sections 7 and 8 of this Act, and of other  
286 communications received from or sent to building occupants regarding building conditions or  
287 symptoms or illnesses related to public building conditions. All complaints shall be promptly  
288 transmitted to the designated person for resolution.

289 (c) Indoor Environmental Compliance Program. Each building owner shall maintain  
290 all other records generated as a result of the indoor environmental compliance program  
291 applicable to a public building under its control or as a result of any action taken with regard to  
292 this Act.

293 (d) Retention of records. Records required to be kept under section 6 shall be  
294 maintained in perpetuity. The building owner shall retain all other records required to be

295 maintained under this section for a minimum of ten years, unless the record is required to be  
296 maintained for a longer period of time by some other statute.

297 (e) Availability. The records subject to this section shall be available on request to  
298 building occupants and their representatives for examination and copying within three business  
299 days of a request made.

300 Section 14. Building Occupant's Right to Request an Inspection.

301 (a) Any building occupant or representative of a building occupant who believes that  
302 a violation of this Act exists in any public building may request an inspection of such workplace  
303 by the Director by giving written notice of the alleged violation to said Director setting forth the  
304 grounds for the notice. When a building occupant is the employee of the building owner, the  
305 building occupant also may request an inspection by the Division of Occupational Safety by  
306 giving written notice of the alleged violation to the Commissioner setting forth the grounds for  
307 the notice. For the purpose of this section "inspection" shall include an inspection of any public  
308 building, or an inspection of the records required to be kept by this Act. The identity of any  
309 person requesting such an inspection shall be kept confidential unless said person waives his  
310 right to confidentiality in writing.

311 (b) If, upon receipt of notification of a request for inspection, the Director or the  
312 Commissioner, depending on which received the request for inspection, determines that there are  
313 reasonable grounds to believe that the alleged violation exists, he shall cause an inspection to be  
314 made as soon as necessary to prevent immediate harm to building occupants or otherwise as soon  
315 as practicable to determine if the alleged or any other violation exists. Inspections under this  
316 section need not be limited to matters referred to in the complaint.

317 (c) Within thirty days of the completion of said inspection, the Director or the  
318 Commissioner, depending on which received the request for inspection, shall issue a report  
319 detailing its findings and recommendations, and provide copies to the building occupant or  
320 representative of a building occupant who requested the inspection, and to the building owner.

321 Section 15. No Retaliation.

322 No person shall retaliate or discriminate in any manner against a building occupant or  
323 a representative of a building occupant because the building occupant or the representative of a  
324 building occupant has filed a complaint, initiated or caused to be initiated any proceeding under  
325 or related to this Act, has testified or is about to testify in any proceeding related to or arising out  
326 of this Act or has taken any action permitted by this Act or exercised on behalf of himself or  
327 others any right afforded by this Act.

328 Section 16. Enforcement.

329 (a) The Director or the Commissioner, depending on who received the request for  
330 inspection, shall review the report resulting from an inspection performed pursuant to section 14.

331 (b) If, on the basis of the report, the Director or Commissioner, depending on which  
332 received the request for inspection, concludes that the building owner has violated any portion of  
333 this Act, he shall issue an order requiring the building owner to remedy the violations. Such  
334 order shall include a timeline for implementation for each remedy ordered. If the building owner  
335 does not take the actions prescribed by the order within the time prescribed by the order, the  
336 superior court for the county in which the public building subject to the report is located shall  
337 have jurisdiction to compel compliance upon the request of said Director, Commissioner, or an  
338 occupant of the affected building.

339 (c) The Director or Commissioner, depending on which received the request for  
340 inspection, shall provide the building occupant or representative of a building occupant who  
341 requested the inspection with a copy of the order to comply with this Act, or, if he has  
342 determined that there has been no violation, with written notification of his determination that  
343 there is no violation and the reasons therefor, within 48 hours of the issuance of the order or the  
344 making of the determination that there has not been a violation of the Act.

345 (d) Any person aggrieved by an action or the lack thereof of the Director or the  
346 Commissioner concerning sections 14 and 16 of this Act may appeal such action to the superior  
347 court for the county in which the public building subject to the action or lack thereof is located.

348 (e) The Director may order the evacuation of a building at any time if he determines  
349 with or without an inspection having been performed that an emergency exists that presents an  
350 immediate danger to the health or safety of building occupants as a result of a violation of the  
351 requirements of this Act. Where the building owner is the employer of some or all of the building  
352 occupants, the Commissioner may order the evacuation of a building at any time if he  
353 determines, with or without an inspection having been performed, that an emergency exists that  
354 presents an immediate danger to the health or safety of building occupants, who are employees  
355 of the building owner, as a result of a violation of the requirements of this Act. The superior  
356 court for the county in which the public building subject to the evacuation order is located shall  
357 have jurisdiction to compel compliance.