

HOUSE No.

The Commonwealth of Massachusetts

PRESENTED BY:

Peter J. Koutoujian

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 passage of the accompanying bill:

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

PETITION OF:

NAME:	DISTRICT/ADDRESS:
Peter J. Koutoujian	10th Middlesex

[SIMILAR MATTER FILED IN PREVIOUS SESSION
SEE HOUSE, NO. 2181 OF 2007-2008.]

The Commonwealth of Massachusetts

In the Year Two Thousand and Nine

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 chapter:-

3 Chapter 111L - Indoor Air Quality

4 Section 2. Definitions.

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

7 Act means this statute.

8 Air contaminants includes but is not limited to: (a) volatile organic and inorganic compounds
9 including, but not limited to, vapors from paint, cleaning products, chemicals, pesticides and
10 solvents; (b) carbon monoxide; (c) particulates; (d) outdoor air pollutants; (e) biological
11 contaminants; and (f) other airborne substances, which may affect the health of building
12 occupants.

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

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

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

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

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

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

26 Division of Occupational Safety means the Division of Occupational Safety of the
27 Department of Labor and Workforce Development.

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

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

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

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

45 Representatives of building occupants means (a) employee organizations; (b) other
46 representatives or agents designated in writing as such by individuals employed in or occupying
47 a public building; (c) parents organizations and other representatives of students in schools; and
48 (d) legal guardians of building occupants who have not reached the age of majority.

49 "Representatives of building occupants" does not include representatives of the general public
50 who use a public building on an intermittent basis.

51 Section 3. Division of Indoor Environments.

52 (a) There shall be within the Department of Public Health a Division of Indoor Environments
53 within the Center for Environmental Health. The Commissioner of the Department of Public
54 Health shall appoint the Director of the Division of Indoor Environments.

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

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

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

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

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

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

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

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

91 (c) Any person who obstructs the Director or the Commissioner in the performance of the
92 duties described subsections (a) or (b) of this section 4 shall be punished by a fine of not less
93 than one thousand and no more than five thousand dollars or by imprisonment for not more than
94 six months, or both, for each instance of the offense.

95 Section 5. Indoor Environmental Compliance Program.

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

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

106 Indoor environment compliance programs shall include, at a minimum, the following
107 information:

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

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

111 (c) Information relating to the daily operation and management of the building systems,
112 which shall include, at a minimum, a description of all normal operating procedures, special
113 procedures such as seasonal start-ups and shutdowns, and a list of operating performance criteria
114 including, but not limited to minimum outside air ventilation rates, potable hot water storage and
115 delivery temperatures, range of relative humidity, and any space pressurization requirements;

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

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

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

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

129 Section 7. Complaints.

130 Each building owner shall establish procedures for receiving and responding to reports and
131 complaints from building occupants and building occupant representatives regarding building
132 conditions, the indoor environment and building maintenance. Where the Department of Public
133 Health has promulgated regulations or where the Division of Indoor Environments has
134 established standard procedures and forms for the above, each building owner shall use the
135 relevant procedures and forms. Building owners shall maintain a written record of all reports and
136 complaints they receive from building occupants and the remedial actions, if any, taken to
137 respond to the reports and complaints.

138 Section 8. Reporting Building-Related Illnesses.

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

146 Section 9. Inspections.

147 Each building owner shall perform a visual inspection annually and a thorough building
148 condition survey every five years of each public building under its control for compliance with
149 the standards promulgated by the Division of Indoor Environments pursuant to section 10 of this
150 Act. The five-year building condition survey shall be conducted by an independent licensed

151 architect or engineer or other appropriately qualified professional. Within six months of the
152 effective date of this Act, the Department of Public Health shall promulgate regulations
153 containing the standard procedures to be followed in the performance of the visual inspection
154 and the five-year building condition survey. The annual visual inspection shall, at a minimum,
155 consider the following:

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

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

- 167 (a) The building site, including utilities, paving, playgrounds, and play fields.
- 168 (b) Roofing.
- 169 (c) Exterior elements of the building, including walls, doors, windows, fire escapes.
- 170 (d) Building structural elements.
- 171 (e) Building interiors, including finishes, doors, and hardware.
- 172 (f) Electrical systems, including service and distribution, lighting, communications,
173 technology infrastructure and cabling.
- 174 (g) Plumbing, including water distribution systems, drainage and fixtures.
- 175 (h) Heating and cooling systems, including boilers, furnaces, terminal units, and control
176 systems.
- 177 (i) Ventilation systems.
- 178 (j) Air conditioning systems, including refrigeration, terminal units, and control systems.

179 (k) Special construction, including stairs, elevators, escalators, and swimming pools.

180 (l) Fire protection and security systems, including alarm, detection, and fire protection.

181 (m) Environmental features, including appearance, cleanliness, acoustics, lighting quality,
182 thermal comfort, humidity, ventilation and space adequacy.

183 (n) Complaints and medical reports received by the building owner pursuant to this Act since
184 the last annual visual inspection and five-year building condition survey, as appropriate.

185 Each building owner shall publish the results of each annual and five-year building condition
186 survey on its public web site or, if such a site does not exist, as a written report that it shall make
187 available to the public. Each building owner shall e-mail each such report within thirty days of
188 its completion to the Director and where the building owner is also an employer of some or all of
189 the building occupants, also to the Commissioner. The Director shall cause each such report to
190 be published on the Department of Public Health's web site where it shall remain for at least five
191 years. The Commissioner shall cause each such report he receives to be published on the
192 Division of Occupation Safety's web site

193 269 where it shall remain for at least five years. Building owners shall keep records of annual
194 inspections and five year building condition surveys for at least ten years.

195 Section 10. Standards.

196 Within six months of the effective date of this Act, the Department of Public Health, shall
197 promulgate regulations establishing indoor environmental standards for each of the subjects
198 listed below. Within six months of the promulgation of said standards, each building owner shall
199 take the actions required by said standards in each public building under its control and
200 incorporate means for implementing each standard within the indoor environmental compliance
201 program for each said public building.

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

203 (b) Ventilation of point sources of contaminants.

204 (c) Humidity.

205 (d) Heating.

206 (e) Air exchange.

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

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

209 (h) Storage of hazardous materials.

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

224 Section 11. Hazardous Chemicals.

225 Each building owner shall evaluate any hazardous substances or chemicals currently in use in
226 a public building under its control and maintain an inventory of the same. Each building owner
227 shall assure that each such substance or chemical is the least toxic alternative feasible for the
228 purpose for which it is intended. Each building owner shall assure for each public building under
229 its control that cleaning and maintenance chemicals, pesticides, and other hazardous substances
230 are used and applied according to the relevant manufacturers' recommendations and material
231 safety data sheets, and shall post notices in clear sight in areas to be treated with potentially
232 hazardous substances at least 24 hours prior to application. Said notices shall include information
233 of the identity of substances intended to be applied and any precautions that should be taken by
234 occupants in those areas. The requirements of this section 11 are in addition to the requirements
235 established by G.L. c. 111F, c. 132B and other applicable statutes and regulations.

236 Section 12. Renovations.

237 Whenever a public building is renovated while continuing to be occupied, the building owner
238 shall take such measures as are needed to assure that the indoor environment experienced by
239 building occupants is not degraded during the renovation as a result of activities or products used

240 in work sites or from any other cause related to the renovation. Such measures shall include, but
241 not be limited to the following:

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

246 (b) Before renovation or similar activities are begun, the building owner, together with
247 representatives of building occupants, shall meet with the contractor or individual(s) performing
248 the work and shall develop and implement a work plan designed to prevent the entry of air
249 contaminants into occupied areas of the building during and after the performance of the work.

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

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

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

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

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

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

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

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

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

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

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

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

268 Section 13. Recordkeeping.

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

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

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

282 (d) Retention of records. Records required to be kept under section 6 shall be maintained in
283 perpetuity. The building owner shall retain all other records required to be maintained under this
284 section for a minimum of ten years, unless the record is required to be maintained for a longer
285 period of time by some other statute.

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

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

290 (a) Any building occupant or representative of a building occupant who believes that a
291 violation of this Act exists in any public building may request an inspection of such workplace
292 by the Director by giving written notice of the alleged violation to said Director setting forth the
293 grounds for the notice. When a building occupant is the employee of the building owner, the
294 building occupant also may request an inspection by the Division of Occupational Safety by
295 giving written notice of the alleged violation to the Commissioner setting forth the grounds for
296 the notice. For the purpose of this section "inspection" shall include an inspection of any public
297 building, or an inspection of the records required to be kept by this Act. The identity of any
298 person requesting such an inspection shall be kept confidential unless said person waives his
299 right to confidentiality in writing.

300 (b) If, upon receipt of notification of a request for inspection, the Director or the
301 Commissioner, depending on which received the request for inspection, determines that there are
302 reasonable grounds to believe that the alleged violation exists, he shall cause an inspection to be
303 made as soon as necessary to prevent immediate harm to building occupants or otherwise as soon

304 as practicable to determine if the alleged or any other violation exists. Inspections under this
305 section need not be limited to matters referred to in the complaint.

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

310 Section 15. No Retaliation.

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

317 Section 16. Enforcement.

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

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

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

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

337 (e) The Director may order the evacuation of a building at any time if he determines with or
338 without an inspection having been performed that an emergency exists that presents an

339 immediate danger to the health or safety of building occupants as a result of a violation of the
340 requirements of this Act. Where the building owner is the employer of some or all of the building
341 occupants, the Commissioner may order the evacuation of a building at any time if he
342 determines, with or without an inspection having been performed, that an emergency exists that
343 presents an immediate danger to the health or safety of building occupants, who are employees
344 of the building owner, as a result of a violation of the requirements of this Act. The superior
345 court for the county in which the public building subject to the evacuation order is located shall
346 have jurisdiction to compel compliance.