

**HOUSE . . . . . No. 03515**

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The Commonwealth of Massachusetts

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PRESENTED BY:

*Carlo Basile*

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*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 the practice of medical physics.

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PETITION OF:

NAME:

*Carlo Basile*

DISTRICT/ADDRESS:

*1st Suffolk*

# HOUSE . . . . . No. 03515

By Mr. Basile of Boston, a petition (accompanied by bill, House, No. [BILL NUMBER]) of Carlo Basile relative to the practice of medical physics and the harmful effects of excessive and unnecessary radiation. Public Health.

## The Commonwealth of Massachusetts

In the Year Two Thousand Eleven

An Act relative to the practice of medical physics.

*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. Purpose and Scope.

2 The Massachusetts Legislature finds that the practice of medical physics by incompetent persons  
3 is a threat to the public health and safety. It is, therefore, the responsibility of this state to protect  
4 the public health and safety from the harmful effects of excessive and unnecessary radiation by  
5 ensuring that the practice of medical physics is entrusted only to persons who are licensed under  
6 this section.

7 Section 2. Definitions.

8 As used in this article:

9 1. "Clinical" shall mean activities directly relating to the treatment or diagnosis of human  
10 ailments.

11 2. "Specialty" or "specialty area" shall mean the following branch or branches of special  
12 competence within medical physics:

13 (a) "Diagnostic radiological physics" shall mean the branch of medical physics relating to the  
14 diagnostic applications of x rays, gamma rays from sealed sources, ultrasonic radiation, radio  
15 frequency radiation and magnetic fields; the equipment associated with their production, use,  
16 measurement and evaluation; the quality of images resulting from their production and the use of  
17 medical health physics associated with this subfield;

18 (b) "Medical health physics" shall mean the branch of medical physics pertaining to the safe use  
19 of x rays, gamma rays, electron and other charged particle beams [or] neutrons or radionuclides  
20 and of radiation from sealed radionuclide sources for both diagnostic and therapeutic purposes,  
21 except with regard to the application of radiation to patients for diagnostic or therapeutic  
22 purposes and the instrumentation required to perform appropriate radiation surveys;

23 (c) "Medical nuclear physics" shall mean the branch of medical physics pertaining to the  
24 therapeutic and diagnostic applications of radionuclides, except those used in sealed sources  
25 for therapeutic purposes; the equipment associated with their production, use, measurement and  
26 evaluation; the quality of images resulting from their production and use and the medical health  
27 physics associated with this subfield; and

28 (d) "Therapeutic radiological physics" or "radiation oncology physics" shall mean the branch of  
29 medical physics relating to the therapeutic applications of x-rays, gamma rays, electron and  
30 charged particle beams, neutrons and radiations from sealed radionuclide sources; the equipment  
31 associated with their production, use, measurement and evaluation; the quality of images

32 resulting from their production and use; and the medical health physics associated with this  
33 subfield.

34 3. "Medical physics" shall mean the branch of physics that is associated with the practice of  
35 medicine

36 4. "Radiation" means ionizing or non-ionizing radiation above background levels which is used  
37 to perform a diagnostic or therapeutic medical or dental radiological procedure.

38 5. "Radiological physics" shall mean diagnostic radiological physics, therapeutic radiological  
39 physics or radiation oncology physics, medical nuclear physics and medical health physics.

40 6. "Radiological procedure" shall mean a test, measurement, calculation, or radiation  
41 exposure used in the diagnosis or treatment of diseases or other medical or dental conditions in  
42 human beings that includes therapeutic radiation, diagnostic radiation, nuclear magnetic  
43 resonance, or nuclear medicine procedures.

44 7. "General Supervision" means a procedure is performed under a Qualified Medical Physicist's  
45 (QMP) overall direction and control but the QMP's presence is not required during the  
46 performance of the procedure. The training of the personnel who actually perform the procedure  
47 and the maintenance of the necessary equipment and supplies are the continuing responsibility of  
48 the QMP.

49 8. "Direct Supervision" means a Qualified Medical Physicist must exercise General Supervision  
50 and be present in the facility and immediately available to furnish assistance and direction  
51 throughout the performance of the procedure but is not required to be present in the room when  
52 the procedure is being performed.

53 9. "Personal Supervision" means a Qualified Medical Physicist must exercise General  
54 Supervision and be present in the room during the performance of the procedure.

55 Section 3. Definition of "practice of medical physics".

56 1. The "practice of the profession of medical physics" shall mean the use of principles and  
57 accepted protocols of physics to provide the quality, quantity, and placement of radiation during  
58 the performance of a radiological procedure.

59 2. A license to practice medical physics shall be issued with special competency in one or more  
60 specialty areas in which the licensee has satisfied the requirements of section 6 of this article.

61 3. The practice in any specialty by a person whose license is not issued with special competency  
62 for such specialty shall be deemed the unauthorized practice of the profession of medical  
63 physics.

64 4. Only a person licensed under this article shall practice the profession of medical physics.

65 Section 4. Use of the title "licensed medical physicist".

66 Only a person licensed under this article shall use the title "licensed medical physicist".

67 Section 5. State Board for medical physics.

68 1. A state board for medical physics shall be appointed by the Department of Public Health upon  
69 the recommendation of the commissioner and shall assist on matters of licensure and  
70 professional conduct in accordance with provisions of existing physician licensure laws.

71 Notwithstanding these provisions, the state board shall assist the board for medicine solely in  
72 medical physics matters and shall also function as the state board for medical physics. The

73 licensure requirements for licensed medical physicists shall be waived for the initial state board  
74 appointees, provided that such appointees shall have received national certification in their  
75 specialty.

76 2. The state board shall consist of eight individuals, to be composed of the following:

77 (a) Four licensed medical physicists represented by each of the following specialties:

78 (i) diagnostic radiological physics,

79 (ii) therapeutic radiological or radiation oncology physics,

80 (iii) medical nuclear physics, and

81 (iv) medical health physics;

82 (b) Three licensed physicians represented by each of the following specialties:

83 (i) diagnostic radiology,

84 (ii) radiation therapy or radiation oncology, and

85 (iii) nuclear medicine; and

86 (c) A representative of the public at large.

87 3. The state board must meet at least twice a year to provide administrative review of the  
88 licensure program to include review of applications, continuing education requirements and  
89 enforcement actions.

90 Section 6. Requirements and procedures for professional licensure.

91 To qualify for a license as a professional medical physicist, an applicant shall fulfill the  
92 following requirements:

93 1. Application: file an application with the state;

94 2. Education: have received an education including a graduate degree from an accredited college  
95 or university in accordance with state regulations. Such person shall have completed such  
96 courses as defined by the state board to practice in the medical physics specialty in which the  
97 applicant has applied for a license;

98 3. Experience: have experience in his or her medical physics specialty satisfactory to the board  
99 and in accordance with the state regulations; and

100 4. Board Certification: receive and maintain board certification in his or her medical physics  
101 specialty satisfactory to the board; and

102 5. Fee. The fees collected will be handled in the following manner:

103 (a) Payment and distribution.

104 (i) The state board shall pay all fees collected under the provisions of this subtitle to the  
105 Massachusetts Comptroller.

106 (ii) The Comptroller shall distribute all fees to the state board established under Section five in  
107 this article.

108 (b) Use. The fees shall be used to cover the actual documented direct and indirect costs of  
109 fulfilling the statutory and regulatory duties of the state board as provided by the provisions of  
110 this subtitle.

111 Section 7. Provisional Licenses. Provisional Licenses shall be issued by the Department of  
112 Public health to eligible applicants, as follows:

113 1. Eligibility. The following persons shall be eligible for a provisional license:

114 (a) a person who fulfills all requirements for a licensed medical physicist except those relating to  
115 board certification or experience; or

116 (b) a medical physics student enrolled in a graduate or post-graduate program approved by the  
117 state board; or

118 (c) a person has been licensed or certified in good standing as a practitioner of one the  
119 subspecialties of medical physics for at least two years in another jurisdiction, including a  
120 foreign country, that has licensing or certification requirements substantially equivalent to the  
121 requirements of this article as determined by the state board and

122 (i) has passed a national or other examination recognized by the state board relating to the  
123 subspecialties of medical physics; and

124 (ii) is sponsored by a person licensed under this article with whom the provisional license holder  
125 will practice during the time the person holds a provisional license.

126 2. Limit of practice. An individual with a provisional license shall be authorized to practice  
127 medical physics only under the direct supervision of a licensed medical physicist and only in the  
128 sub-specialty of such licensed medical physicist;

129 3. Duration. A provisional license permit shall be valid for two years. It may be renewed at the  
130 discretion of the state ;



131 4. Fee. The fees collected will be handled in the following manner:

132 (a) Payment and distribution.

133 (i) The state board shall pay all fees collected under the provisions of this subtitle to the  
134 Massachusetts Comptroller.

135 (ii) The Comptroller shall distribute all fees to the state board established under Section five in  
136 this article.

137 (b) Use. The fees shall be used to cover the actual documented direct and indirect costs of  
138 fulfilling the statutory and regulatory duties of the state board as provided by the provisions of  
139 this subtitle.

140 5. Experience. Medical physics experience obtained in this state to be credited towards the  
141 experience requirement for licensure must be obtained under a provisional license.

142 Section 8. Exemptions. Nothing in this article shall be construed to:

143 1. Affect, prevent or in any manner expand or limit the authority of any person otherwise  
144 authorized by law or regulation to practice any function of a medical physicist, or any  
145 department or agency authorized by law or regulation to regulate the use of radiation, nor

146 2. Prohibit the repair or calibration of any test equipment used by licensed medical physicists by  
147 any person otherwise allowed to do so under state or federal law, nor

148 3. Serve to limit radiologic and/or imaging technologists or any individual otherwise authorized  
149 by law or regulation from performing quality control measurements or obtaining quality control  
150 data under the supervision of a licensed medical physicist, nor

151 4. Serve to limit neither a service engineer in the repair of radiation producing equipment nor an  
152 installation engineer in the installation of radiation producing equipment.

153 Section 9. Licensure without board certification

154 Within time frame determined by state of the effective date of regulations implementing the  
155 provisions of this article, the state board may issue a license to practice medical physics within  
156 one or more specialties in this state, without board certification, to a person who meets the  
157 requirements of subdivisions one, two, three and five of Section Six of this article and who in  
158 addition has earned a bachelor's, master's or doctoral degree from an accredited college or  
159 university that signifies the completion of a course of study acceptable to the state board, and has  
160 demonstrated to the state board's satisfaction, in the case of an earned bachelor's degree, the  
161 completion of at least fifteen years of full-time work experience in the medical physics specialty  
162 for which application is made, or, in the case of an earned master's or doctoral degree, the  
163 completion of at least two years of full-time work experience in the seven years preceding the  
164 date of application in the medical physics specialty for which application is made and the  
165 equivalent of one year or more of full-time work experience in the ten years preceding the date  
166 of application for each additional specialty for which application is made.

167 Section 10. Continuing Education Requirements

168 The state shall require continuing education sufficient to maintain professional certification as  
169 defined by the state board by regulation.

170 Section 11. License Term and Renewal

171 1. A license is valid for two years from the date granted and shall be renewed every two years.

172 2. The state board by rule may adopt a system under which licenses expire on various dates  
173 during the year.

174 3. A person may renew an unexpired license by paying the required renewal fee to the state  
175 board before the expiration date of the license.

176 4. The state board shall require documentation of continuing education be submitted with the  
177 renewal.

178 5. If a person's license has been expired for 90 days or less, the person may renew the license by  
179 paying to the state board the required renewal fee and a penalty fee in an amount equal to one-  
180 half of the amount of the renewal fee.

181 6. If a person's license has been expired for longer than 90 days but less than two years, the  
182 person may renew the license by paying to the state board the renewal fee that was due at  
183 expiration and a penalty fee in an amount equal to the amount of the renewal fee.

184 7. If a person's license has been expired for two years or longer, the person may not renew the  
185 license. To obtain a new license, a person must comply with the application requirements of this  
186 article and must submit to the state board:

187 (a) a supplemental experience record as required by the state board;

188 (b) a description of professional activities undertaken during the expiration period;

189 (c) a list of current professional references; and

190 (d) a transcript for any degree or college credit earned since the person's previous license  
191 application.

192 Section 12. Enforcement

193 1. In general. Subject to the hearing provisions of Department of Public Health, the state board,  
194 on the affirmative vote of a majority of the quorum, may reprimand any licensee, place any  
195 licensee on probation, or suspend or revoke a license if the licensee:

196 (a) Fraudulently or deceptively obtains or attempts to obtain a license for the applicant or  
197 licensee or for another;

198 (b) Fraudulently or deceptively uses a license;

199 (c) Is guilty of:

200 (i) Immoral conduct in the practice of medical physics; or

201 (ii) Unprofessional conduct in the practice of medical physics;

202 (d) Is professionally, physically, or mentally incompetent;

203 (e) Habitually is intoxicated;

204 (f) Is addicted to, or habitually abuses, any narcotic or controlled dangerous substance as defined  
205 in Massachusetts criminal law article;

206 (g) Provides professional services:

207 (i) While under the influence of alcohol; or

208 (ii) While using any narcotic or controlled dangerous substance, as defined in Massachusetts  
209 criminal law article or other drug that is in excess of therapeutic amounts or without valid  
210 medical indication;

211 (h) Promotes the sale of drugs, devices, appliances, or goods to a patient so as to exploit the  
212 patient for financial gain;

213 (i) Willfully makes or files a false report or record in the practice of medical physics;

214 (j) Willfully fails to file or record any medical report as required under law, willfully impedes or  
215 obstructs the filing or recording of the report, or induces another to fail to file or record the  
216 report;

217 (k) On proper request, and in accordance with the provisions of state confidentiality of medical  
218 records article, fails to provide details of a patient's medical record to the patient, another  
219 physician, or hospital;

220 (l) Makes a willful misrepresentation in treatment;

221 (m) Practices medical physics with an unauthorized person or aids an unauthorized person in the  
222 practice of medical physics;

223 (n) Grossly overutilizes health care services;

224 (o) Is disciplined by a licensing or disciplinary authority or convicted or disciplined by a court of  
225 any state or country or disciplined by any branch of the United States uniformed services or the  
226 Veterans' Administration for an act that would be grounds for disciplinary action under this  
227 section;

228 (p) Fails to meet appropriate standards as determined by appropriate peer review for the delivery  
229 of quality medical care performed in an outpatient facility, office, hospital, or any other location  
230 in this State;

- 231 (q) Willfully submits false statements to collect fees for which services are not provided;
- 232 (r) Was subject to investigation or disciplinary action by a licensing or disciplinary authority or  
233 by a court of any state or country for an act that would be grounds for disciplinary action under  
234 this section and the licensee:
- 235 (i) Surrendered the license issued by the state or country to the state or country; or
- 236 (ii) Allowed the license issued by the state or country to expire or lapse;
- 237 (s) Gives away or administers drugs for illegal or illegitimate medical purposes;
- 238 (t) Refuses, withholds from, denies, or discriminates against an individual with regard to the  
239 provision of professional services for which the licensee is licensed and qualified to render  
240 because the individual is HIV positive;
- 241 (u) Except in an emergency life-threatening situation where it is not feasible or practicable, fails  
242 to comply with the Centers for Disease Control's guidelines on universal precautions;
- 243 (v) Fails to display the notice required under notice of CDC guidelines on universal precaution.
- 244 (w) Fails to cooperate with a lawful investigation conducted by the state board;
- 245 (x) Is convicted of insurance fraud as defined in state insurance article;
- 246 (y) Willfully makes a false representation when seeking or making application for licensure or  
247 any other application related to the practice of medical physics;
- 248 (z) By corrupt means, threats, or force, intimidates or influences, or attempts to intimidate or  
249 influence, for the purpose of causing any person to withhold or change testimony in hearings or

250 proceedings before the state board or those otherwise delegated to the state office of  
251 administrative hearings;

252 (aa) By corrupt means, threats, or force, hinders, prevents, or otherwise delays any person from  
253 making information available to the state board in furtherance of any investigation of the state  
254 board;

255 (bb) Intentionally misrepresents credentials for the purpose of testifying or rendering an expert  
256 opinion in hearings or proceedings before the state board or those otherwise delegated to state  
257 office of administrative hearings; or

258 (cc) Fails to keep adequate medical records as determined by appropriate peer review.

259 2. Crimes involving moral turpitude.

260 (a) On the filing of certified docket entries with the state board by the Office of the Attorney  
261 General, the state board shall order the suspension of a license if the licensee is convicted of or  
262 pleads guilty or nolo contendere with respect to a crime involving moral turpitude, whether or  
263 not any appeal or other proceeding is pending to have the conviction or plea set aside.

264 (b) After completion of the appellate process if the conviction has not been reversed or the plea  
265 has not been set aside with respect to a crime involving moral turpitude, the state board shall  
266 order the revocation of a license on the certification by the Office of the Attorney General.

267

268 3. Imposition of penalty. If after a hearing the state board finds that there are grounds under this  
269 article to suspend or revoke a license to practice medical physics, or to reprimand a licensed  
270 medical physicist, the state board may impose a fine subject to the state board's regulations:

271 (a) Instead of suspending the license; or

272 (b) In addition to suspending or revoking the license or reprimanding the licensee.

273

274 4. Disposition of funds. The state board shall pay any fines collected under this article into the  
275 general fund.

276 5. Conditions for surrender of license.

277 (a) Agreement of state board required. Unless the state board agrees to accept the surrender of a  
278 license of an individual the state board regulates, the individual may not surrender the license nor  
279 may the license lapse by operation of law while the individual is under investigation or while  
280 charges are pending.

281 (b) Conditions on agreement. The state board may set conditions on its agreement to accept  
282 surrender of a license.

283 Section 13. Ethical Guidelines

284 Recommend practice standards for the practice of medical physics which are consistent with the  
285 Code of Ethics prepared by the American Association of Physicists in Medicine and American  
286 College of Medical Physics and disciplinary guidelines adopted under current applicable state  
287 law.

288 Section 14. Separability.



289 If any section of this article, or part thereof, shall be adjudged by any court of competent  
290 jurisdiction to be invalid, such judgment shall not affect, impair or invalidate the remainder of  
291 any other section or part thereof.

292 This act shall take effect eighteen months after the date on which it shall have become a law;  
293 provided however, that any actions necessary for the implementation of the provisions of this act  
294 on its effective date are authorized and directed to be completed on or before such effective date.