

# HOUSE . . . . . No. 3515

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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 adoption of the accompanying bill:

An Act relative to the practice of medical physics.

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PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
<i>Carlo Basile</i>	<i>1st Suffolk</i>	<i>1/20/2011</i>

# HOUSE . . . . . No. 3515

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By Mr. Basile of Boston, a petition (accompanied by bill, House, No. 3515) of Carlo Basile relative to the practice of medical physics and the harmful effects of excessive and unnecessary radiation. Public Health.

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## The Commonwealth of Massachusetts

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In the Year Two Thousand Eleven  
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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  
3 persons is a threat to the public health and safety. It is, therefore, the responsibility of this state to  
4 protect the public health and safety from the harmful effects of excessive and unnecessary  
5 radiation by ensuring that the practice of medical physics is entrusted only to persons who are  
6 licensed under 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.

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

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

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

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

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

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

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

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

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

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

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

8. "Direct Supervision" means a Qualified Medical Physicist must exercise General Supervision and be present in the facility and immediately available to furnish assistance and

direction throughout the performance of the procedure but is not required to be present in the room when the procedure is being performed.

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

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

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

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

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

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

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

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

### Section 5. State Board for medical physics.

72           1. A state board for medical physics shall be appointed by the Department of Public  
73   Health upon the recommendation of the commissioner and shall assist on matters of licensure  
74   and professional conduct in accordance with provisions of existing physician licensure laws.  
75   Notwithstanding these provisions, the state board shall assist the board for medicine solely in  
76   medical physics matters and shall also function as the state board for medical physics. The  
77   licensure requirements for licensed medical physicists shall be waived for the initial state board  
78   appointees, provided that such appointees shall have received national certification in their  
79   specialty.

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

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

82           (i) diagnostic radiological physics,

83           (ii) therapeutic radiological or radiation oncology physics,

84           (iii) medical nuclear physics, and

85           (iv) medical health physics;

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

87           (i) diagnostic radiology,

88           (ii) radiation therapy or radiation oncology, and

89           (iii) nuclear medicine; and

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

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

94           Section 6. Requirements and procedures for professional licensure.

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

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

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

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

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

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

107           (a) Payment and distribution.

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

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

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

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

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

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

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

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

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

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



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

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

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

(a) Payment and distribution.

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

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

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

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

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

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

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

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

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

157           Section 9. Licensure without board certification

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

171           Section 10. Continuing Education Requirements

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

#### Section 11. License Term and Renewal

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

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

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

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

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

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

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

- (a) a supplemental experience record as required by the state board;
- (b) a description of professional activities undertaken during the expiration period;
- (c) a list of current professional references; and
- (d) a transcript for any degree or college credit earned since the person's previous license application.

## Section 12. Enforcement

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

- (a) Fraudulently or deceptively obtains or attempts to obtain a license for the applicant or licensee or for another;
- (b) Fraudulently or deceptively uses a license;
- (c) Is guilty of:
  - (i) Immoral conduct in the practice of medical physics; or
  - (ii) Unprofessional conduct in the practice of medical physics;
- (d) Is professionally, physically, or mentally incompetent;
- (e) Habitually is intoxicated;
- (f) Is addicted to, or habitually abuses, any narcotic or controlled dangerous substance as defined in Massachusetts criminal law article;

211 (g) Provides professional services:

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

213 (ii) While using any narcotic or controlled dangerous substance, as defined in

214 Massachusetts criminal law article or other drug that is in excess of therapeutic amounts or

215 without valid medical indication;

216 (h) Promotes the sale of drugs, devices, appliances, or goods to a patient so as to exploit

217 the patient for financial gain;

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

219 (j) Willfully fails to file or record any medical report as required under law, willfully

220 impedes or obstructs the filing or recording of the report, or induces another to fail to file or

221 record the report;

222 (k) On proper request, and in accordance with the provisions of state confidentiality of

223 medical records article, fails to provide details of a patient's medical record to the patient,

224 another physician, or hospital;

225 (l) Makes a willful misrepresentation in treatment;

226 (m) Practices medical physics with an unauthorized person or aids an unauthorized

227 person in the practice of medical physics;

228 (n) Grossly overutilizes health care services;

229 (o) Is disciplined by a licensing or disciplinary authority or convicted or disciplined by a

230 court of any state or country or disciplined by any branch of the United States uniformed services

231 or the Veterans' Administration for an act that would be grounds for disciplinary action under  
232 this section;

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

236 (q) Willfully submits false statements to collect fees for which services are not provided;

237 (r) Was subject to investigation or disciplinary action by a licensing or disciplinary  
238 authority or by a court of any state or country for an act that would be grounds for disciplinary  
239 action under this section and the licensee:

240 (i) Surrendered the license issued by the state or country to the state or country; or

241 (ii) Allowed the license issued by the state or country to expire or lapse;

242 (s) Gives away or administers drugs for illegal or illegitimate medical purposes;

243 (t) Refuses, withholds from, denies, or discriminates against an individual with regard to  
244 the provision of professional services for which the licensee is licensed and qualified to render  
245 because the individual is HIV positive;

246 (u) Except in an emergency life-threatening situation where it is not feasible or  
247 practicable, fails to comply with the Centers for Disease Control's guidelines on universal  
248 precautions;

249 (v) Fails to display the notice required under notice of CDC guidelines on universal  
250 precaution.

(w) Fails to cooperate with a lawful investigation conducted by the state board;

(x) Is convicted of insurance fraud as defined in state insurance article;

(y) Willfully makes a false representation when seeking or making application for licensure or any other application related to the practice of medical physics;

(z) By corrupt means, threats, or force, intimidates or influences, or attempts to intimidate or influence, for the purpose of causing any person to withhold or change testimony in hearings or proceedings before the state board or those otherwise delegated to the state office of administrative hearings;

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

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

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

## 2. Crimes involving moral turpitude.

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

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

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

(a) Instead of suspending the license; or

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

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

5. Conditions for surrender of license.

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

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

Section 13. Ethical Guidelines



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

297           Section 14. Separability.

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

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