## HOUSE . . . . . . . . . . . . . . . . No. 04097

The committee on Public Health, reports, on House, No. 3515, a Bill relative to the practice of medical physics (House, No. 4097). May 17, 2012. Jeffrey Sánchez, for the committee.

## The Commonwealth of Massachusetts

In the Year Two Thousand Twelve

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. Chapter 13 of the General Laws is hereby amended by adding the following

2 section:

- 3 Section 109. (a) There shall be a board of registration in medical physics, herein called the board.
- 4 The board shall consist of 8 members who are residents of the commonwealth, who shall be
- 5 appointed by the governor, 4 of whom shall be licensed medical physicists, 3 of whom shall be
- 6 physicians registered pursuant to chapter 112, and 1 of whom shall be a member of the general
- 7 public, subject to the provisions of section 9B.
- 8 Licensed medical physicist board members shall include representatives from the following
- 9 specialties: diagnostic radiological physics, therapeutic radiological or radiation oncology

10 physics,

11 medical nuclear physics, and medical health physics.

12 Physician board members shall include representatives from the following specialties: diagnostic13 radiology, radiation therapy or radiation oncology, and nuclear medicine.

(b) Members of the board shall be appointed for a term of 3 years, except that of the members of
the first board, 4 members shall be appointed for terms of 3 years, and 4 members shall be
appointed for terms of 2 years. No member may be appointed to more than 2 consecutive full
terms, provided, however, that a member appointed for less than a full term may serve 2 full
terms in addition to such of a part of a full term, and a former member shall again be eligible for
appointment after a lapse of 1 or more years.

(c) Any member of the board may be removed by the governor for neglect of duty, misconduct
or malfeasance or misfeasance in office after being given a written statement of the charges
against him and sufficient opportunity to be heard thereon. Upon the death or removal for cause
of a member of the board, the governor shall fill the vacancy for the remainder of that member's
term.

(d) The board shall meet not less than 2 times per calendar year. At its first meeting and
annually thereafter, the board shall elect from among its members a chairperson, a vicechairperson and a secretary who shall each serve for 1 year and until a successor is appointed and
qualified. Board members shall serve without compensation but shall be reimbursed for actual
and reasonable expenses incurred in the performance of their duties.

30 SECTION 2. Chapter 112 of the General Laws is hereby amended by adding the following 1431 sections:-

32 Section 263. As used in sections 263 to 276, inclusive, the following words shall have the33 following meanings:-

34 "Board", the board of registration in medical physics, established under section 109 of chapter35 13.

36 "Clinical", activities directly relating to the treatment or diagnosis of human ailments.

37 "Diagnostic radiological physics", the medical physics specialty relating to the diagnostic

38 applications of x rays, gamma rays from sealed sources, ultrasonic radiation, radio frequency

39 radiation and magnetic fields; the equipment associated with their production, use, measurement

40 and evaluation; the quality of images resulting from their production and the use of medical

41 health physics associated with this specialty.

42 "Direct Supervision", a qualified medical physicist exercising general supervision and present in 43 the facility and immediately available to furnish assistance and direction throughout the 44 performance of the procedure but is not required to be present in the room when the procedure is 45 being performed.

46 "General Supervision", a procedure is performed under a qualified medical physicist's (QMP) 47 overall direction and control but the QMP's presence is not required during the performance of 48 the procedure. The training of the personnel who actually perform the procedure and the 49 maintenance of the necessary equipment and supplies are the continuing responsibility of the 50 QMP.

51 "Medical health physics", the medical physics specialty pertaining to the safe use of x rays, 52 gamma rays, electron and other charged particle beams, neutrons or radionuclides and of 53 radiation from sealed radionuclide sources for both diagnostic and therapeutic purposes, except 54 with regard to the application of radiation to patients for diagnostic or therapeutic purposes and 55 the instrumentation required to perform appropriate radiation surveys. 56 "Medical nuclear physics", the medical physics specialty pertaining to the therapeutic and 57 diagnostic applications of radionuclides, except those used in sealed sources for therapeutic 58 purposes; the equipment associated with their production, use, measurement and evaluation; the 59 quality of images resulting from their production and use and the medical health physics 60 associated with this specialty.

61 "Medical physics", the subfield of physics that is associated with the practice of medicine.

62 "Personal Supervision", a qualified medical physicist exercising general supervision and is63 present in the room during the performance of the procedure.

64 "Radiation", ionizing or non-ionizing radiation above background levels which is used to

65 perform a diagnostic or therapeutic medical or dental radiological procedure.

66 "Radiological physics", diagnostic radiological physics, therapeutic radiological physics or

67 radiation oncology physics, medical nuclear physics and medical health physics.

68 "Radiological procedure", a test, measurement, calculation, or radiation

69 exposure used in the diagnosis or treatment of diseases or other medical or dental conditions in

70 human beings that includes therapeutic radiation, diagnostic radiation, nuclear magnetic

71 resonance, or nuclear medicine procedures.

72 "Specialty" or "specialty area", the following subfield or subfields of special competence within

73 medical physics: diagnostic radiological physics, medical health physics, medical nuclear

74 physics and therapeutic radiological physics or radiation oncology physics.

75 "Therapeutic radiological physics" or "radiation oncology physics", the medical physics specialty

76 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 specialty.

80 Section 264. The board shall adopt, amend and rescind rules and regulations as it deems
81 necessary for the proper conduct of its duties.

82 Section 265. The board shall keep a full record of its proceedings and keep a register of all 83 persons licensed by it, which shall be available for public inspection. The register shall contain 84 the name of every living licensee, the licensee's last known place of business and last known 85 place of residence, and the date and number of the licensee's license as a medical physicist.

86 Section 266: The board shall:

87 (1) issue licenses to those applicants it finds qualified;

88 (2) adopt regulations establishing licensing and licensing renewal requirements;

89 (3) investigate complaints against persons licensed under this section;

90 (4) hold hearings and order the disciplinary sanction of a person who violates any provisions
91 of sections 263 to 276, inclusive, or a regulation of the board;

92 (5) approve education and training programs that meet the requirements of the board and
93 sections 263 to 276, inclusive, and deny revoke, or suspend approval of such programs for failure
94 to meet the requirements;

95 (6) adopt standards for approved medical physicist education and training;

96 (7) adopt professional continuing education requirements for medical physicists; and

97 (8) adopt ethical standards.

Section 267. The practice of the profession of medical physics, as referred to in sections 263 to 98 99 276 inclusive, shall mean the use of principles and accepted protocols of physics to provide the 100 quality, quantity, and placement of radiation during the performance of a radiological procedure. 101 A license to practice medical physics may be issued with special competency in one or more specialty areas in which the licensee has satisfied the provisions of section 270. 102 103 The practice in any specialty by a person whose license is not issued with special competency for 104 such specialty shall be deemed the unauthorized practice of the profession of medical physics. 105 Only a person licensed under sections 263 to 276 shall practice the profession of medical 106 physics.

107 Section 268. Only a person licensed under section 270 shall use the title "licensed medical108 physicist".

Section 269. A person who desires to be licensed as a medical physicist shall apply to the board in writing on an application form prescribed and furnished by the board. The applicant shall include in the application statements under oath satisfactory to the board showing that the applicant possesses the qualifications required by section 270. At the time of filing the application, an applicant shall pay to the board a fee which shall be set by the secretary of administration and finance.

115 Section 270. To be eligible for licensure by the board as a medical physicist, an applicant shall:

116 (1) have received an education including a graduate degree from an accredited college or117 university in accordance with requirements prescribed by the board. Such person shall have

118 completed such courses as defined by the board to practice in the medical physics specialty in119 which the applicant has applied for a license;

120 (2) meet practical experience requirements prescribed by the board in his or her medical121 physics specialty; and

122 (3) receive and maintain board certification in his or her medical physics specialty123 satisfactory to the board.

124 Section 271. (a) The board may issue a provisional license to persons who:

125 (1) fulfills all requirements for a licensed medical physicist under section 270 except those126 relating to board certification or experience; or

127 (2) is enrolled in a medical physics graduate or post-graduate program approved by the128 board; or

has been licensed or certified in good standing as a practitioner of 1 of the subspecialties
of medical physics for at least 2 years in another jurisdiction, including a foreign country, that
has licensing or certification requirements substantially equivalent to the requirements of
sections 263 to 276 as determined by the board, and

133 i. has passed a national or other examination recognized by the board relating to the134 subspecialties of medical physics; and

ii. is sponsored by a person licensed under sections 263 to 276 with whom the provisionallicense holder will practice during the time the person holds a provisional license.

137 (b) An individual with a provisional license shall be authorized to practice medical physics only
138 under the direct supervision of a licensed medical physicist and only in the sub-specialty of such
139 licensed medical physicist.

140 (c) A provisional license permit shall be valid for 2 years. It may be renewed at the discretion of141 the board.

142 (d) Medical physics experience obtained in the commonwealth to be credited towards the

143 experience requirement for licensure shall be obtained under a provisional license.

144 Section 272. Nothing in sections 263 to 276 shall be construed to:

145 (a) Affect, prevent or in any manner expand or limit the authority of any person otherwise

146 authorized by law or regulation to practice any function of a medical physicist, or any

147 department or agency authorized by law or regulation to regulate the use of radiation; nor

148 (b) Prohibit the repair or calibration of any test equipment used by licensed medical physicists by

149 any person otherwise allowed to do so under state or federal law; nor

150 (c) Serve to limit radiologic and/or imaging technologists or any individual otherwise authorized

151 by law or regulation from performing quality control measurements or obtaining quality control

152 data under the supervision of a licensed medical physicist; nor

(d) Serve to limit neither a service engineer in the repair of radiation producing equipment nor aninstallation engineer in the installation of radiation producing equipment.

155 Section 273. The board may issue a license to practice medical physics within 1 or more

156 specialties in this state, without board certification, to a person who meets the requirements of

157 clause (1) and (2) of section 270 and who in addition has earned a bachelor's, master's or doctoral

degree from an accredited college or university that signifies the completion of a course of study 158 acceptable to the board, and has demonstrated to the board's satisfaction, in the case of an earned 159 bachelor's degree, the completion of at least 15 years of full-time work experience in the medical 160 physics specialty for which application is made, or, in the case of an earned master's or doctoral 161 degree, the completion of at least 2 years of full-time work experience in the 7 years preceding 162 163 the date of application in the medical physics specialty for which application is made and the equivalent of 1 year or more of full-time work experience in the 10 years preceding the date of 164 application for each additional specialty for which application is made. 165

Applicants for licensure under this section shall be filed with the board not later than 18 monthsafter the effective date of this act.

Section 274. The board shall require continuing education sufficient to maintain professionalcertification.

Section 275. (a) The board may, after a hearing pursuant to chapter 30A, revoke, suspend, or
cancel the license of a medical physicist, or reprimand or censure a medical physicist if it finds
upon proof satisfactory to the board that such medical physicist:

173 (1) Fraudulently or deceptively obtains or attempts to obtain licensure as a medical physicist;

174 (2) violated any provision of law relating to the practice of medicine or medical physics, or175 any rule or regulation adopted thereunder;

acted with gross misconduct in the practice of medical physics or of practicing medical
physics fraudulently, or beyond its authorized scope, or with gross incompetence, or with gross
negligence on a particular occasion or negligence on repeated occasions;

179 (4) practiced medical physics while the ability to practice is impaired by alcohol, drugs,180 physical disability or mental instability;

181 (5) knowingly permitted, aided or abetted an unlicensed person to perform activities
182 requiring a license for purposes of fraud, deception or personal gain;

183 (6) has been convicted of a criminal offense which reasonably calls into question the ability184 to practice medical physics;

185 (7) violated any rule or regulation of the board;

186 (8) acted in a manner which is professionally unethical according to ethical standards of the187 profession of medical physics or violated any provision of sections 263 to 276; or

is disciplined by a licensing or disciplinary authority or convicted or disciplined by a
court of any state or country or disciplined by any branch of the United States uniformed services
or the Veterans' Administration for an act that would be grounds for disciplinary action under
this section.

(b) If after a hearing the board finds that there are grounds to suspend or revoke a license to
practice medical physics, or to reprimand a licensed medical physicist, the board may impose a
fine instead of suspending the license or in addition to suspending or revoking the license or
reprimanding the licensee.

(c) Unless the board agrees to accept the surrender of a license of an individual the board
licenses, 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. The board may set
conditions on its agreement to accept surrender of a license.

Section 276. (a) Any person who practices medical physics without a license granted pursuant to sections 263 to 276, inclusive, shall be punished by a fine of not less than \$100 nor more than \$1,000, or by imprisonment for not more than 3 months, or by both. The board may petition in any court of competent jurisdiction for an injunction against any person practicing medical physics or any specialty thereof without a license. Such injunction may be issued without proof of damage sustained by any person. Such injunction shall not relieve such person from criminal prosecution for practicing without a license.

207 (b) Nothing in this section shall be construed to prevent or restrict the practice, service or activities of (1) any person licensed in the commonwealth from engaging in activities within the 208 209 scope of practice of the profession or occupation for which such person is licensed, provided that 210 such person does not represent to the public, directly or indirectly, that such person is licensed 211 under sections 263 to 276, inclusive, and that such person does not use any name, title or 212 designation indicating that such person is licensed under said sections 263 to 276, inclusive; (2) any person employed as a medical physicist by the federal government or an agency thereof if 213 that person provides medical physics services solely under the direction and control of the 214 215 organization by which such person is employed.

SECTION 3. The board of medical physicists, established pursuant to section 109 of chapter 13
of the general laws, shall establish regulations for the licensure of individuals practicing medical
physics prior to the date on which the board commences issuing licenses.

219 SECTION 4. Nothing in this act shall preclude any person who was practicing medical physics220 before the effective date of this act from practicing medical physics in the commonwealth until

- 221 the board of medical physics establishes procedures for the licensure of medical physics
- 222 pursuant to sections 263 to 276, inclusive, of chapter 112 of the general laws.