Methodology to Indicate Changes to
DPH-10-007 – Health and Therapeutic Medical Physicist Authorization

The proposed changes for comment that are the subject of this notice (third 15-day public comment period) are indicated as follows:

- Deletions from the proposed text are indicated by a double strike-through *italicized* font (strike-through).

- Additions to the proposed text are indicated by a double underline *italicized* font (underline).

Regulation text not subject to this third 15-day public comment period are presented for the reader’s convenience and are indicated as follows:

- Deleted text as initially proposed is indicated by single strike-through (strike-through).

- Additions to the regulation text as initially proposed is indicated by single underline (underline).

- Deletions from the proposed text presented during the first 15-day public comment period are indicated by double strike-through (strike-through).

- Additions to the proposed text presented during the first 15-day public comment period are indicated by double underline (underline).

- Deletions from the proposed text presented during the second 15-day public comment period are indicated by a shaded double strike-through (strike-through).

- Additions to the proposed text presented during the second 15-day public comment period are indicated by a shaded double underline (underline).
Amend Section 30306 to read as follows:

§ 30306. Definitions.
(a) “Automatic exposure control” means a device which automatically controls one or more technique factors in order to obtain at a preselected location(s) a required quantity of radiation.
(b) “Cineradiography” means the making of a motion picture record of the successive images appearing on a fluorescent screen.
(c) “Contact therapy” means irradiation of accessible lesions usually employing a very short source skin distance and potentials of 40-50 KV.
(d) “Dead-man switch” means a switch so constructed that a circuit-closing contact can only be maintained by continuous pressure by the operator.
(e) “Diagnostic-type tube housing” means an X-ray tube housing so constructed that the leakage radiation measured at a distance of 1 meter from the source cannot exceed 100 milliroentgens in 1 hour when the tube is operated at its maximum continuous rate of current for the maximum rated tube potential.
(f) “Filter” means material placed in the useful beam to absorb preferentially the less penetrating radiations.
(g) “Interlock” means a device for precluding access to an area of radiation hazard either by preventing entry or by automatically removing the hazard.
(h) “Leakage radiation” means all radiation coming from within the tube housing except the useful beam.
(i) “Protective barrier” means a barrier of attenuating materials used to reduce radiation exposure.
(j) “Primary protective barrier” means a barrier sufficient to attenuate the useful beam to the required degree.
(k) “Scattered radiation” means radiation that, during passage through matter, has been deviated in direction.
(l) “Secondary protective barrier” means a barrier sufficient to attenuate stray radiation to the required degree.
(m) “Shutter” means a device, generally of lead, fixed to an X-ray tube housing to intercept the useful beam.
(n) “Stray radiation” means radiation not serving any useful purpose. It includes leakage and scattered radiation.
(o) “Therapeutic-type tube housing” means,
(1) For X-ray therapy equipment not capable of operating at 500 kVp or above, an X-ray tube housing so constructed that the leakage radiation at a distance of 1 meter...
from the source does not exceed 1 roentgen in an hour when the tube is operated at its maximum rated continuous current for the maximum rated tube potential.

(2) For X-ray therapy equipment capable of operating at 500 kVp or above, an X-ray tube housing so constructed that the leakage radiation at a distance of 1 meter from the source does not exceed either 1 roentgen in an hour or 0.1 percent of the useful beam dose rate at 1 meter from the source, whichever is greater, when the machine is operated at its maximum rated continuous current for the maximum rated accelerating potential.

(3) In either case, small areas of reduced protection are acceptable provided the average reading over any 100 square centimeters area at 1 meter distance from the source does not exceed the values given above.

(p) “Useful beam” means that part of the radiation which passes through the window, aperture, cone, or other collimating device of the tube housing. (T17-30306-T24).

(a) The definitions in section 30100 shall apply to this article.

(b) As used in this article:

(1) “Approved continuing education credit” means 50 to 60 minutes of instruction received in subjects related to medical or health physics, as applicable, and accepted for purposes of credentialing, assigning professional status, or certification by:

(A) The Commission on Accreditation of Medical Physicists Educational Programs, Inc.; or

(B) American Academy of Health Physicists, Physics.

(2) through (26) No change to initially proposed text.
(1) through (11)  No change to Text.

(b) Operating Procedures. The user shall ensure the following:

(1) When a patient must be held in position for radiation therapy, patient immobilization mechanical supporting or restraining devices shall be used.

(2) through (3)  No change to Text.

(4) A calibration of the output of each radiation therapy X-ray system shall be performed before the system is first used for irradiation of a patient, and thereafter at intervals not to exceed 24 months. Therapy X-ray equipment shall not be used for any therapy treatments except at those combinations of effective energy, field size, and treatment distance for which the equipment has been calibrated. The calibration shall be performed by or under the direct supervision of a person who has been determined by the Department to have adequate training, experience and knowledge in radiation therapy physics, and who shall be present at the facility during such calibration. After any change which might significantly alter the output, spatial distribution, or other characteristics of the therapy beam, the parameters which might be affected shall be measured.

(A) through (B)  No change to Text.

(5) All new installations and existing installations not previously surveyed shall have a radiation protection survey performed by or under the direction supervision of an HP or a TMP or a TSP or a TCP of a person determined by the Department to have adequate knowledge and training to advise regarding radiation protection needs, to measure ionizing radiation and to evaluate safety techniques. If the survey shows that supplementary shielding is required, a resurvey shall be performed by or under the supervision of an HP or TMP or TSP or TCP after its installation. In addition, a resurvey shall be made after every change which might decrease radiation protection significantly. The surveyor shall report his findings in writing to the user. The report shall indicate whether or not the installation is in compliance with all applicable radiation protection requirements of this section. The user shall report the findings of the survey in writing to the Department within 15 days of his receipt of the survey report.
(6) The exposure rate or dose rate of the useful beam and the size and shape of the useful beam shall be known with reasonable certainty at all times during operation of the radiation therapy apparatus or therapeutic X-ray systems for medical purposes.

(7) Spot checks shall be performed at least once each week for therapy or therapeutic X-ray systems operating at potentials above 500 kVp, and at least once each month for therapy or therapeutic X-ray systems operating at 500 kVp or below.

(A) and (B) No change to Text.

(C) The spot check procedures shall be in writing and shall have been developed or approved by a TMP or TCP the individual who made the most recent calibration of the system pursuant to Section 30312(b)(4). The written spot check procedures shall specify when measurements and determinations indicate an inconsistency or potential change in radiation output. When more than the minimum frequency of spot checking is necessary, the spot check procedures shall specify the frequency at which spot checks are to be performed.

(D) When spot check results are erratic or inconsistent with calibration data, the person who designed the spot check procedures, or a person of equivalent competence, shall be consulted immediately and the reason(s) for the inconsistency corrected before the system is used for patient irradiation.

(8) through (9) No change to Text.


Adopt Section 30313.05 to read as follows:

§ 30313.05. Health Physicist Therapeutic Survey Physicist Requirements.

(a) A person who performs as an HPa TSP, as defined in section 30306, shall be authorized by the Department pursuant to section 30313.1530313.07 and:

(1) Be certified by:
(A) American Board of Radiology in Diagnostic Therapeutic Medical Physics;  
(B) American Board of Health Physics in Health Physics; and have completed:

1. At least 100 hours of didactic training in radiologic physics. The number of hours required to meet this provision may not be counted toward meeting the requirement in clause two; and

2. At least 1,000 hours of work experience in diagnostic medical physics under the supervision of a TMP. Work as a part of an accredited medical physics residency counts toward this requirement. The number of hours required to meet this provision may not be counted toward meeting the requirement in clause one;

(C) American Board of Medical Physics in Medical Health Physics or Radiation Oncology Physics Diagnostic Imaging Physics; or

(D) Canadian College of Physicists in Medicine in Radiation Oncology Physics Diagnostic Radiological Physics; or

(2) Have at least a bachelor's degree in physics, health physics, a physical science or engineering from an accredited college or university and have completed, within five years preceding the date of application:

(A) At least 2,000 hours of training in health or radiologic physics, of which 100 hours shall be didactic training in radiologic physics. The number of hours required to meet this provision may not be counted toward meeting the requirement in subparagraph (B); and

(B) At least 2,000 hours of work experience in health physics, of which 1,000 hours shall be in evaluating and testing diagnostic X-ray systems, under the supervision of an HP or TMP a TSP or TCP. Work as a part of a medical physicist residency program accredited by the Commission on Accreditation of Medical Physicists Educational Programs, Inc. may be counted towards the work experience requirement. The number of hours required to meet this provision may not be counted toward meeting the requirement in subparagraph (A);

(A) At least 2,000 hours of training, and at least 2,000 hours of work experience. The training and work experience shall be in health physics or radiologic health physics.
Training is completion of non-supervised didactic, self-study, or online coursework approved, or obtained through a program accredited by the Commission on Accreditation of Medical Physicists Educational Programs, Inc. (CAMPEP). Work experience is experience obtained while under supervision of a TSP or TCP. None of the required training hours may be counted as meeting the required work experience hours, or vice versa, except as follows:

1. Completion of a CAMPEP-accredited medical physics residency program: 2,000 hours shall be applied to the required training hours, and 1,000 hours shall be applied to the required work experience hours. The remaining work experience hours shall be under supervision of a TSP or TCP.

2. Partial completion of a CAMPEP-accredited medical physics residency program: Completed coursework in health physics or radiologic health physics shall apply first to the required 2,000 hours of training. If that completed coursework satisfies all of the required training hours and excess coursework hours remain, then the excess coursework hours, but not more than 500 coursework hours, shall be applied to the required 2,000 hours of work experience. The remaining work experience hours shall be under supervision of a TSP or TCP.


Adopt Section 30313.07 to read as follows:

§ 30313.07. Eligibility for and Issuance of Therapeutic Survey Physicist Authorization.

(a) To be eligible for authorization as a TSP, an applicant shall submit to the Department an acceptable application, as described in section 30313.30(a), containing:

(1) The applicant’s legal name, mailing address and telephone number;

(2) The applicant’s social security number (SSN) or individual taxpayer identification number (ITIN) (pursuant to the authority found in sections 131050, 131051, and 131200 of the Health and Safety Code and as required by section 17520...
of the Family Code, providing the SSN or ITIN is mandatory. The SSN or ITIN will be used for purposes of identification.):

(3) Documentation that the applicant meets the requirements of section 30313.05. Except for applicants requesting authorization pursuant to section 30313.05(a)(1)(A), the applicant shall include at least three sample radiation protection survey reports of therapeutic X-ray equipment at a medical facility, one of which is a survey of therapeutic X-ray equipment with an energy greater than 500 kVp. Additionally, applicants requesting authorization pursuant to section 30313.05(a)(2) shall: for the required degree, submit a diploma or transcripts, or a copy or copies thereof; for training, submit completion documents, or copies thereof, showing what training was received or completed, the date(s) of the training, and that the training was approved, or obtained through a program accredited by the Commission on Accreditation of Medical Physicists Educational Programs, Inc.; and, for work experience, submit a written letter from the applicant’s supervisor, or multiple letters if multiple supervisors, containing:

(A) The name, signature and date of signature of the supervising individual;
(B) The name of the applicant;
(C) The dates the supervisor supervised the work of the applicant;
(D) The name of the facility where the applicant was supervised; and
(E) A statement confirming that the applicant fulfilled the work experience requirement pursuant to section 30313.05(a)(2)(B)(A) and is competent to function independently as a TSP. If work experience was completed under multiple supervisors, the statement shall state the amount of hours the individual was supervised and that the individual demonstrated competence in performing assigned duties during the time the individual was supervised.

(4) The application fee specified in section 30313.45.

(b) Authorization shall be valid for three years.

Adopt Section 30313.09 to read as follows:

§ 30313.09. Renewal of Therapeutic Survey Physicist Authorization.

(a) To be eligible for renewal of authorization as a TSP, an individual shall, at least 30 calendar days prior to the expiration date of authorization, submit to the Department an acceptable application, as described in section 30313.30(a), containing:

(1) The applicant’s legal name, mailing address, telephone number and authorization number as shown on the Department-issued authorization. Individuals who were previously approved or authorized to conduct therapeutic radiation protection surveys and are applying for purposes of section 30313.40 shall include their social security number (SSN) or individual taxpayer identification number (ITIN) in lieu of the authorization number. (Pursuant to the authority found in sections 131050, 131051, and 131200 of the Health and Safety Code and as required by section 17520 of the Family Code, providing the SSN or ITIN is mandatory. The SSN or ITIN will be used for purposes of identification.)

(2) Except for individuals who were previously approved or authorized to conduct therapeutic radiation protection surveys and are applying for purposes of section 30313.40, provide documentation:

(A) Demonstrating that the applicant is certified by an entity specified in section 30313.05(a)(1); or

(B) Confirming completion of 15 approved continuing education credits as defined in section 30306. Approved continuing education credits shall be completed in the three years immediately preceding the expiration date and documentation shall include:

1. The name of the approving organization;

2. The name of the instructor or provider and their contact information;

3. A description of the instruction provided; and

4. The dates of the instruction; and

(3) The fee for renewal as specified in section 30313.45.
Adopt Section 30313.10 to read as follows:

§ 30313.10. Therapeutic Medical Calibration Physicist Requirements.

(a) A person who performs as a TMP_TCP, as defined in section 30306, shall be authorized by the Department as a TMP_TCP pursuant to section 30313.15 and:

1. Be certified by:
   (A) The American Board of Radiology in Therapeutic Medical Physics;
   (B) American Board of Medical Physics in Radiation Oncology Physics or Medical Health Physics; or
   (C) Canadian College of Physicians in Medicine in Radiation Oncology Physics; or

2. Have at least a graduate degree in medical physics, health physics, a physical science, or engineering from an accredited college or university and have completed, within five years preceding the date of application:
   (A) At least 2,000 hours of training in therapeutic medical physics, of which 500 hours shall be in diagnostic medical physics. The number of hours required to meet this provision may not be counted toward meeting the requirement in subparagraph (B); and
   (B) At least 2,000 hours of work experience in clinical therapeutic medical physics, of which 500 hours shall be in evaluating and testing diagnostic X-ray systems under the supervision of a TMP_TCP. Work as a part of a medical physicist residency program accredited by the Commission on Accreditation of Medical Physicists Educational Programs, Inc. may be counted toward the work experience requirement. The number of hours required to meet this provision may not be counted toward meeting the requirement in subparagraph (A).

(A) At least 2,000 hours of training, and at least 2,000 hours of work experience. The training and work experience shall be in therapeutic medical physics. Training is completion of non-supervised didactic, self-study, or online coursework approved, or obtained through a program accredited, by the Commission on Accreditation of Medical
Physicists Educational Programs, Inc. (CAMPEP). Work Experience is experience obtained while under supervision of a TCP. None of the required training hours may be counted as meeting the required work experience hours, or vice versa, except as follows:

1. Completion of a CAMPEP-accredited medical physics residency program: 2,000 hours shall be applied to the required training hours, and 1,000 hours shall be applied to the required work experience hours. The remaining work experience hours shall be under supervision of a TCP.

2. Partial completion of a CAMPEP-accredited medical physics residency program: Completed coursework in therapeutic medical physics shall apply first to the required 2,000 hours of training. If that completed coursework satisfies all of the required training hours and excess coursework hours remain, then the excess coursework hours, but not more than 500 coursework hours, shall be applied to the required 2,000 hours of work experience. The remaining work experience hours shall be under supervision of a TCP.


Adopt Section 30313.15 to read as follows:

§ 30313.15. Eligibility for and Issuance of Health or Therapeutic Medical Calibration Physicist Authorization.

(a) To be eligible for authorization as an HP or TMPa TCP, an applicant shall submit to the Department an acceptable application, as described in section 30313.30(a), containing:

(1) The applicant’s legal name, mailing address and telephone number;
(2) The applicant’s social security number (SSN) or individual taxpayer identification number (ITIN) (pursuant to the authority found in sections 131050, 131051, and 131200 of the Health and Safety Code and as required by section 17520
of the Family Code, providing the social security number (SSN or ITIN) is mandatory. The social security number (SSN or ITIN) will be used for purposes of identification.):

(3) A statement identifying whether the applicant is requesting authorization as an HP or a TMP.

(4) Documentation that the applicant meets the requirements of section 30313.05 or 30313.10, as applicable. Except for applicants requesting authorization pursuant to section 30313.10(a)(1)(A), the applicant shall include at least three sample calibration reports of a therapeutic X-ray system at a medical facility, two of which shall be of systems with energies greater than 500 kVp. Additionally, if the applicant is requesting authorization pursuant to section 30313.05(a)(2) or 30313.10(a)(2), the applicant shall: for the required degree, submit a diploma or transcripts, or a copy or copies thereof; for training, submit completion documents, or copies thereof, showing what training was received or completed, the date(s) of the training, and that the training was approved, or obtained through a program accredited, by the Commission on Accreditation of Medical Physicists Educational Programs, Inc.; and, for work experience, submit a written letter from the applicant’s supervisor, or multiple letters if multiple supervisors, containing:

(A) The name, signature and date of signature of the supervising individual;

(B) The name of the applicant;

(C) The dates the supervisor supervised the work of the applicant;

(D) The name of the facility where the applicant was supervised; and

(E) A statement confirming that the applicant fulfilled the work experience requirement pursuant to section 30313.05(a)(2)(B) or 30313.10(a)(2)(BA) and is competent to function independently as an HP or TMP, as applicable. If work experience was completed under multiple supervisors, the statement shall state the amount of hours the individual was supervised and that the individual demonstrated competence in performing assigned duties during the time the individual was supervised; and

(5) The application fee specified in section 30313.45.

(b) Authorization shall be valid for three years.
Adopt Section 30313.20 to read as follows:

§ 30313.20. Renewal of Health or Therapeutic Medical Calibration Physicist Authorization.

(a) To be eligible for renewal of authorization as an HP or a TMP, a TCP an individual shall, at least 30 calendar days prior to the expiration date of authorization, submit to the Department an acceptable application, as described in section 30313.30(a), containing:

(1) The applicant’s legal name, mailing address, telephone number and authorization number as shown on the Department-issued authorization, except that individuals who were previously approved or authorized to conduct therapeutic X-ray systems calibrations or radiation protection surveys and are applying for purposes of section 30313.40 shall include their social security number (SSN) or individual taxpayer identification number (ITIN) in lieu of the authorization number. (Pursuant to the authority found in sections 131050, 131051, and 131200 of the Health and Safety Code and as required by section 17520 of the Family Code, providing the social security number SSN or ITIN is mandatory. The social security number SSN or ITIN will be used for purposes of identification.)

(2) Except for individuals who were previously approved or authorized to conduct therapeutic X-ray systems calibrations or radiation protection surveys and are applying for purposes of section 30313.40, provide documentation confirming completion of approved continuing education credits as specified in section 30313.35 that includes:

(A) The name of the approving organization;
(B) The name of the instructor or provider and their contact information;
(C) A description of the instruction provided; and
(D) The dates of the instruction; and
(A) Demonstrating that the applicant is certified by an entity specified in section 30313.10(a)(1); or

(B) Confirming completion of 15 approved continuing education credits as defined in section 30306. Approved continuing education credits shall be completed in the three years immediately preceding the expiration date and documentation shall include:

1. The name of the approving organization;
2. The name of the instructor or provider and their contact information;
3. A description of the instruction provided; and
4. The dates of the instruction; and

(3) The fee for renewal as specified in section 30313.45.


Adopt Section 30313.30 to read as follows:

§ 30313.30. Application Deadlines for Health Therapeutic Survey Physicist or Therapeutic Medical Calibration Physicist Authorization.

(a) For purposes of the TSP or TMP TCP authorization issued pursuant to sections 30313.07, 30313.09, 30313.15, or 30313.20:

(1) Receipt of an application, information, documentation or fee shall be deemed to occur on the date the application, information, documentation or fee is received by the Department;

(2) An application is considered acceptable when all documents, information, or fees required to be submitted on or with the application have been received by the Department, so as to allow the Department to determine if the applicant meets the specified eligibility requirements; and

(3) Written notification by the Department to applicants shall be deemed to occur on the date the notification is postmarked or, if sent electronically, the date sent as indicated on the electronic communication.
Adopt Section 30313.50 to read as follows:

§ 30313.50. Grounds for Amendment, Restriction, Suspension or Revocation of Authorization.

(a) Authorization issued pursuant to sections 30313.07, 30313.09, 30313.15, or section 30313.20, or 30313.40 may, in accordance with subsection (b), be amended, restricted, suspended or revoked for any of the following:

(1) The submission of false, incorrect or fraudulent information to obtain or renew authorization;

(2) The impersonation of another authorized individual, or allowing another person to use one’s own authorization, for the purpose of providing health physics or therapeutic medical physics services;

(3) Unprofessional conduct, including, but not limited to, incompetence, gross negligence, physical, mental, or verbal abuse of patients, or misappropriation of property of patients or others;

(4) The violation of, or the attempt to violate, any provision of the Radiologic Technology Act (RT Act) (Health and Safety Code section 27), the Radiation Control Law (RCL) (Health and Safety Code section 114960 et seq.) or any order of the Department;

(5) The prevention of, or the attempt to impede in any way, any lawful enforcement of the RT Act or the RCL, the regulations adopted pursuant to those provisions, or any order of the Department;

(6) Conviction of a crime substantially related to the qualifications and duties of an HP or TMP, a TCP or a TSP;

(7) Failure to take corrective action as directed by the Department;
(8) Suspension or revocation of certification or authorization by any entity specified in sections 30313.05(a) or 30313.10(a); or

(9) Failure to pay fees.

(b) In determining whether, in a given case, to take an action specified in subsection (a), the Department shall consider factors, such as the following:

(1) Nature and severity of the act(s), offense(s), or crime(s) under consideration;
(2) Actual or potential harm to the public;
(3) Actual or potential harm to any patient;
(4) Prior disciplinary record;
(5) Number or variety of violations;
(6) Mitigation evidence;
(7) Aggravating evidence;
(8) Rehabilitation evidence;
(9) In case of a criminal conviction, compliance with conditions of sentence and court-ordered probation;
(10) Criminal record;
(11) Time passed since the act(s) or offense(s) occurred; and
(12) If applicable, evidence of expungement proceedings pursuant to Penal Code section 1203.4.