

Initial Statement of Reasons

Summary of the Proposal

This proposal addresses the recommendations of the Radiologic Technology Certification Committee (RTCC) regarding schools providing training and education in radiologic technology and makes other numerous regulatory changes regarding the administration of the Radiologic Technology Act (RT Act) in general.

Policy Statement Overview

Problem Statement: California Department of Public Health (Department) radiologic technology regulations implementing the RT Act are outdated since they were last amended in 1985. These outdated regulations hamper the Department's enforcement efforts and fail to address recent legislation pertaining to training and school approvals. RTCC provided numerous recommendations to update X-ray school regulations for consistency with national education standards.

Objectives: Broad objectives of this proposed regulatory action are to:

- Address RTCC recommendations pertaining to X-ray schools.
- Update existing regulations to coincide with recent legislation.
- Enable the Department to properly enforce the regulations for radiologic technologist and X-ray technician training and education.

Benefits: Anticipated benefits from this proposed regulatory action are:

- Consistency with national education standards.
- Clear application processes for compliance with the RT Act.
- Updated regulations to provide clarity for schools, students, and applicants.

Evaluation as to whether the proposed regulations are inconsistent or incompatible with existing state regulations:

The Department evaluated this proposal and determined that it, if adopted, will not be inconsistent or incompatible with existing state regulations. This evaluation included a review of the Department's existing general regulations and those regulations specific to the implementation of the RT Act. An Internet search of other state agency regulations determined that no other state regulation addresses the same subject matter.

Background/Authority

The RT Act codified in Health and Safety Code (H&S Code), sections 106965 through 107120 and sections 114840 through 114896, was enacted into California law in 1969 to protect the public and radiation workers from excessive or improper exposure to ionizing radiation. The RT Act requires that any individual who use X-rays on human beings meet certain standards of education, training, and experience. The Department (successor to the Department of Health Services) is authorized under the RT Act, to

promulgate regulations to implement the Act's provisions. (H&S Code 131055 & 131200.¹)

Radiologic technology means the application of X-rays on human beings for diagnostic or therapeutic purposes. (H&S Code 114850(c).) The term "radiography" is commonly used by the health industry, and more specifically by the radiology community, to refer to diagnostic X-ray procedures and the term "radiation therapy" is used to refer to therapeutic X-ray procedures. "Mammographic X-ray," which is a subset of radiography, is usually called "mammography" and generally refers to diagnostic X-ray procedures of the human breast; however, there are statutory definitions that affect this terminology. These distinctions are used throughout this document and clarified as necessary.

Pursuant to the RT Act, the Department:

- Certifies individuals as radiologic technologists in diagnostic, therapeutic, and mammographic X-ray use. An individual certified as a radiologic technologist is called a certified radiologic technologist (CRT).
- Permits individuals as limited permit X-ray technicians in specific permit categories. Limited permits are permits authorizing the holder to conduct radiologic technology limited to the performance of certain procedures or the application of X-ray to specific areas of the human body, except for a mammogram. (H&S Code 114850(e).) An individual granted a limited permit is called a limited permit X-ray technician (XT).
- Certifies and permits licensed medical, osteopathic, podiatric, and chiropractic doctors for the use of diagnostic or therapeutic X-rays within the scope of their professional license. These individuals are called "licentiates of the healing arts" ("licentiates") as defined in H&S Code 114850(h)(1). Once a licentiate is certified or permitted under the RT Act, they are called a "certified supervisor or operator" as defined in H&S Code 114850(i); and
- Approves schools that provide the training courses required for obtaining a non-licentiate certificate or permit.

The RT Act also created the Radiologic Technology Certification Committee (RTCC) to assist, advise, and make recommendations for the establishment of rules and regulations necessary to insure the proper administration and enforcement of the RT Act. (H&S Code 114855.)

As implemented within regulations (Title 17, California Code of Regulations (17 CCR), sections 30400² et seq.) the overall current structure of certification of individuals and

¹ This short format "H&S Code 131055" for a given Health and Safety Code section will be used throughout this document for brevity.

² The short format "17 CCR 30400" for a given regulation will be used throughout this document for brevity.

approval of schools under the RT Act is as follows:

1. Certificates & Permits issued to non-licentiates:

- Certificate in diagnostic radiologic technology (17 CCR 30440)
- Certificate in therapeutic radiologic technology (17 CCR 30440)
- Certificate in mammographic radiologic technology (must also possess certificate in diagnostic radiologic technology) (17 CCR 30455.1)
- Radiologic technologist fluoroscopy permit (must also possess certificate in diagnostic radiologic technology) (17 CCR 30451)
- Limited permits in the following categories (17 CCR 30442 & 30443):
 - Chest, Dental X-ray laboratory, Dermatology X-ray therapy, Extremities, Gastrointestinal, Genitourinary, Leg-podiatric, Skull, X-ray bone densitometry, and Torso-skeletal radiography.

2. Certificates & Permits issued to licentiates (17 CCR 30466)

- Fluoroscopy supervisor and operator permit
- Radiography supervisor and operator permit
- Dermatology supervisor and operator permit
- Radiology supervisor and operator certificate

3. Approved Schools in:

- Radiologic technology
 - Diagnostic (17 CCR 30421)
 - Therapeutic (17 CCR 30422)
 - Technologist Fluoroscopy Permit (17 CCR 30423)
- Limited Permit X-ray Technician categories (17 CCR 30424, 30425, 30427, & 30427.2)
 - See item 1 regarding Limited Permit categories.

Private organizations, such as the American Registry of Radiologic Technologists (ARRT), certify individuals in the use of X-rays for medical purposes and ensure that schools educating and training the individuals provide the quality training necessary. Individuals who are certified meet specific didactic coursework content and clinical competencies in the radiologic sciences. ARRT's requirements for diagnostic radiography follow:

- Didactic coursework content specifications (Reference 6a³, p. 1):
 - Radiation protection;
 - Equipment operation and quality control;
 - Image acquisition and evaluation;
 - Imaging procedures; and
 - Patient care and education.
- Competence demonstration in (Reference 6, p. 1):
 - 6 mandatory general patient care activities;

³ All referenced documents are listed at the end of this document.

- 31 mandatory imaging procedures; and
- 15 elective imaging procedures (selected from 35 specific procedures).

The American Society of Radiologic Technologists (ASRT) is a professional association for the medical imaging and radiation therapy community that advances the medical imaging (i.e. radiography) and radiation therapy profession and enhances the quality of patient care, through education, advocacy, and research. ASRT uses ARRT's radiography content specifications, in developing, maintaining, and updating the curriculum to ensure quality radiologic services are provided to patients. Proposed curriculum is publicly available for review and comment by the public and professional community. Once formally adopted, the curriculum is used nationally by schools providing education and training in the radiologic sciences.

The Joint Review Committee on the Education in Radiologic Technology (JRCERT) is a private organization that is recognized by the U.S. Department of Education as an accreditation organization for radiologic science educational programs. JRCERT establishes standards for such programs teaching radiography and radiation therapy, one of which requires the schools' adopted curriculum to be the latest version of the ASRT's curriculum. (References 8: p. 36; Ref. 9: p. 36; & Ref. 10: p. 14 for "Recognized and Accepted Curriculum".) The Department currently considers JRCERT accreditation sufficient for meeting Department curriculum requirements (17 CCR 30421 & 30422) in accordance with the authority granted by the RT Act. (H&S Code 107050.)

During the 2009-2010 Legislative session, the Governor signed into law, Senate Bill (SB) 1332 (Statutes of 2010, chapter 525). SB 1332 mandated the Department to approve diagnostic or therapeutic radiologic technology schools that are also JRCERT-accredited as approved schools, provided the Department established an agreement with JRCERT. This legislation provided an alternative approval process for JRCERT-accredited schools to maintain the Department-approval while allowing time for the Department to formally address JRCERT's standards through regulation. To provide the time necessary for adoption of regulations, SB 1332 mandated adoption, through a specific process in lieu of the normal rulemaking process specified in the Administrative Procedures Act, of JRCERT's standards for diagnostic and therapeutic RT schools. Those standards were officially adopted on March 3, 2011. However, provisions enacted through SB 1332 are scheduled to sunset (e.g. be repealed by operation of law) on January 1, 2015. Therefore, this proposal addresses JRCERT-accredited RT schools to ensure this alternative approval process remains after SB 1332 sunsets.

In 2007, the RTCC established subcommittees to review and provide advice on current regulatory requirements including school curriculum. At the March 2010 meeting, RTCC accepted the subcommittee's reports regarding radiologic technology (RT) certification schools and recommended to the Department regulatory changes for both diagnostic and therapeutic RT schools. At other public meetings, RTCC made other recommendations addressing administration of the RT Act. Therefore, this proposal

addresses the following RTCC recommendations and other Department-determined needs regarding the administration of the RT Act in general.

RTCC Recommendation	Date of Meeting	
<p>Discontinue on-the-job training (OJT) program.</p> <p>See discussion of section 30428.</p>		
<p>Require reeducation of an applicant that fails the state test three times. Recommended this proposal be modified to follow ARRT's procedure for exam limitation.</p> <p>See discussion of section 30440.</p>		
<p>Discontinue the dermatology limited permit category.</p> <p>See discussion of section 30424.</p>		November 14, 2000 (Reference 1.)
<p>Change the dental X-ray laboratory permit requirements (Section 30425). Delete the requirement to complete 50 mandible (lateral view) procedures and increase the required number of panoramic procedures to 100. (Reference 1 only.)</p> <p>See discussion of section 30425.</p>		September 21, 2005 (Reference 2.)
<p>Discontinue the Gastrointestinal (GI) limited permit category.</p> <p>See discussion of section 30424.</p>		
<p>Modify the Genitourinary (GU) limited permit category (section 30443(f)) as follows (Reference 2 & 18):</p> <ul style="list-style-type: none"> • Rename category to "Genitourinary-noncontrast." • Authorize performance of a supine abdomen view. • State that no contrast procedures are allowed. • Modify current GU number of hours for training in anatomy and physiology (A&P) and positioning. <p>See discussion of section 30424.</p>		September 21, 2005 (Reference 2.)
<p>Recognize the American Chiropractic Board of Radiology for purposes of section 30467.</p> <p>See discussion of sections 30466 and 30467.</p>		

RTCC Recommendation	Date of Meeting
<p>Require both licentiates and RTs holding fluoroscopy permits to obtain continuing education (section 30403) of at least four hours on radiation safety for the clinical uses of fluoroscopy, as part of renewing their authorization.</p> <p>See discussion of section 30403.</p>	<p>September 23, 2009 (Reference 4.)</p>
<p>Amend section 30421 as identified in Attachment 1⁴.</p> <p>See discussion of section 30421.</p>	<p>March 17, 2010 (Reference 5.)</p>
<p>Amend section 30422 as identified in Attachment 2.</p> <p>See discussion of section 30422.</p>	
<p>Amend section 30427.2 as identified in Attachment 3.</p> <p>See discussion of section 30427.2.</p>	<p>March 17, 2010 (Reference 5.)</p> <p>March 16, 2011 (Reference 18.)</p>
<p>Amend section 30452 to allow graduates of JRCERT accredited RT programs, who have passed the ARRT's radiography exam, to be eligible for the fluoroscopy permit exam.</p> <p>See discussion of section 30451. Section 30452 is proposed to be repealed and moved to section 30451.</p>	<p>March 13, 2009 (Reference 3.)</p>

On October 26, 2011, an initial draft proposed regulation addressing the above RTCC recommendations was presented to the RTCC and the public for review and discussion. The draft proposal (Reference 25) was also posted on the Department's website on October 27, 2011. Based on comments received from RTCC members and attendees, the draft regulations were revised (Reference 26), sent to RTCC members and school program directors and posted on the Department's website prior to, and presented at, the RTCC's May 2, 2012 public meeting. This proposal further addresses comments received at that meeting.

⁴ A list of attachments and references are found at the end of this document.

The authority and reference citations of sections being amended, resulting in nonsubstantial changes pursuant to title 1, California Code of Regulations section 100, reflect the:

- Numbering system implemented by the 1995 recodification of the H&S Code, and
- Reorganization of the Department of Health Services into the Department of Health Care Services and the California Department of Public Health, pursuant to SB 162. (Stats. 2006, ch. 241.)

DETAILED DISCUSSION OF EACH REGULATION

The regulations interpreting, specifying, or implementing the RT Act are in 17 CCR, sections 30400 et seq. The proposed changes are explained as follows:

Adopt **section 30400** to both address the problems and realize the benefits as stated regarding this regulatory action and identify, and define terms used within this proposal and existing regulations for clarity as follows:

Section 30400 - Subsection & Term	Discussion
(a)(1) – Act	This term is necessary to clarify what law is referred to within this proposal.
(a)(2) – Affiliated clinical site	<p>This term is necessary to clarify what the Department calls a clinical site that accepts a school’s students for completing clinical training. Currently, such a clinical site is called by a number of generic terms resulting in confusion. The term and definition are based on JRCERT’s term “clinical education setting” as found within the following standards and clarifies the purpose of clinical sites:</p> <ul style="list-style-type: none"> • “Standards for an Accredited Educational Program in Radiography,” April 2010. (Reference 8.) • “Standards for an Accredited Educational Program in Radiation Therapy,” April 2010. (Reference 9.) • “Standards for an Accredited Educational Program in Radiologic Sciences,” Revised 2001. (Reference 10.) <p>The purpose of clinical sites is to provide individuals with practical, hands-on training for gaining experience and skills necessary for performing X-ray procedures and obtaining quality images. An affiliated clinical site is a Department-approved clinical site where the individual becomes competent in performing X-ray procedures so as to meet the cited eligibility requirements.</p>
(a)(3) – Affiliation agreement	This term is necessary to ensure uniform interpretation and understanding of a commonly used, undefined term. In current

	<p>regulations, the term is found only in section 30435(d). The proposed definition is based on the following JRCERT standards:</p> <ul style="list-style-type: none"> • “Standards for an Accredited Educational Program in Radiography,” April 2010; Standard 6.4. (Reference 8, p. 69.) • “Standards for an Accredited Educational Program in Radiation Therapy,” April 2010; Standard 6.4. (Reference 9, p. 67.) • “Standards for an Accredited Educational Program in Radiologic Sciences,” Revised 2001; Standard 3.2 and Glossary. (Reference 10, pp. 3 & 12.)
(a)(4) – Approved continuing education credit	<p>This term is recodified from section 30400.5 to this subsection so that all terms used within the RT Act regulations are easily found. This is a nonsubstantial change.</p>
(a)(5) – Approved school	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. The RT Act defines "approved school for radiologic technologists" to mean “a school that the department has determined provides a course of instruction in radiologic technology that is adequate to meet the purposes of this chapter.” (H&S Code 114850(f).) The purpose of the RT Act is “to establish standards of education, training, and experience for persons who use X-rays on human beings and to prescribe means for assuring that these standards are met.” (H&S Code 114840.) Based on the RT Act’s term, the term “approved school” is proposed to be used as a general term to refer to all types of schools; namely, radiologic technology certification schools, radiologic technologist fluoroscopy permit schools, and limited permit X-ray technician schools. These types of schools are proposed to be defined and are discussed below under each particular term. Use of a general term will allow staff and industry to maintain a consistent understanding during communications.</p>
(a)(6) – Approval to operate & Approval (a)(7) – Approved to operate & Approved	<p>These terms are necessary for clarity to ensure uniform interpretation and understanding of commonly used terms. They are based on Education Code (EC) sections 94817 and 94817.5.</p>

<p>(a)(8) – Certified diagnostic radiologic technologist</p> <p>(a)(9) – Certified radiologic technologist</p>	<p>These terms are necessary for clarity to ensure uniform interpretation and understanding of commonly used undefined terms. They are based on H&S Code 106990, 114850(d), and 114870(b).</p>
<p>(a)(10) – Certified supervisor and operator</p>	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of a regulatory term. The term is based on 17 CCR sections 30460 through 30467, inclusive. It is necessary to include the phrase “for purposes of this subchapter” in the definition because the RT Act defines the phrase “certified supervisor or operator” to mean a licentiate of the healing arts who has been certified pursuant to H&S Code 114870(e) or 107111 to supervise the operation of X-ray machines or to operate X-ray machines, or both. (H&S Code 114850(i).) The phrase “licentiate of the healing arts” is also defined to mean any licensed doctor of medicine, osteopathy, podiatry, or chiropractic. (H&S Code 114850(h)(1).)</p> <p>The proposed term compared to the RT Act term is different in that the proposed term uses the conjunction “and” whereas the RT Act term uses the conjunction “or.” The proposed term is used because, as implemented, the issued authorization (i.e. certificate or permit) allows the holder to both use X-ray equipment and to supervise the equipment’s use by lawfully authorized persons. This reduces the regulatory structure (and burden on the medical industry and CDPH) of issuing authorizations.</p>
<p>(a)(11) – Certified therapeutic radiologic technologist</p>	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. The definition is based on H&S Code 114870(b) and 17 CCR 30440.</p>
<p>(a)(12) – Clinical coordinator</p>	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. The definition is based on the following JRCERT standards regarding “clinical coordinator”:</p> <ul style="list-style-type: none"> • “Standards for an Accredited Educational Program in Radiography,” April 2010; Standards 3.8 & 6.3 (Reference 8, pp. 42 & 67.) • “Standards for an Accredited Educational Program in Radiation Therapy,” April 2010; Standard 3.8 & 6.3. (Reference 9, pp. 42 & 65.)

	<ul style="list-style-type: none"> • “Standards for an Accredited Educational Program in Radiologic Sciences,” Revised 2001; Standards 6.1 & 6.2, and Glossary. (Reference 10, pp. 6, 7 & 12.)
(a)(13) – Clinical site	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. The definition is based on the following JRCERT standards regarding “clinical education settings”:</p> <ul style="list-style-type: none"> • “Standards for an Accredited Educational Program in Radiography,” April 2010; Standard 6.4. (Reference 8, p. 8.) • “Standards for an Accredited Educational Program in Radiation Therapy,” April 2010; Standard 6.4. (Reference 9, p. 8.) • “Standards for an Accredited Educational Program in Radiologic Sciences,” Revised 2001; Standard 3.2 and Glossary. (Reference 10, pp. 3 & 12.)
(a)(14) – Credentialing examination pass rate	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. This term’s definition is redesignated from 17 CCR 30436(a)(2) and is also based on EC section 94837 and the following JRCERT Standards:</p> <ul style="list-style-type: none"> • “Standards for an Accredited Educational Program in Radiography,” April 2010; Standard 5.2. (Reference 8, p. 59.) • “Standards for an Accredited Educational Program in Radiation Therapy,” April 2010; Standard 5.2. (Reference 9, p. 57.) • “Standards for an Accredited Educational Program in Radiologic Sciences,” Revised 2001; Glossary (Reference 10, p. 12.) <p>The Department’s definition and JRCERT’s definition are different because the Department also issues limited permits requiring passage of multiple examinations. Applicants for limited permits (17 CCR 30444 as proposed) must pass a radiation protection and safety (RPS) examination and, for each permit category applied for, a radiologic technology (RT) examination. Thus, an applicant for one permit category takes two exams, for two permit categories, three exams (i.e. RPS and an RT exam for each category), etc. JRCERT’s definition is based on the passage of one examination.</p>
(a)(15) – CRT	<p>This acronym is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. It is based on H&S Code 106990 and 114850(d).</p>
(a)(16) –	<p>This term is necessary for clarity to identify the state organization</p>

Department	responsible for enforcing and administering the RT Act and its implementing regulations.
(a)(17) – Diagnostic radiologic technology	This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. It is based on H&S Code 114850(c) and 114870(b).
(a)(18) – Digital radiography	This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used undefined term. It is based on the following: <ul style="list-style-type: none"> • H&S Code 114870(c)(2), (c)(3), and (d). • 17 CCR 30400.85 (recodified to and proposed to be amended in subsection (a)(36)), 30410, 30410.2, and 30447(a)(6). • Title 21, Code of Federal Regulations, (21 CFR) section 1020.30(b) for “image receptor.” • American College of Radiology’s “ACR-AAPM-SIIM Practice Guideline for Digital Radiography” (Reference 18); and • ASRT’s Radiography curriculum (Reference 16).
(a)(19) – Direct oversight	This term is necessary for clarity to ensure uniform interpretation and understanding of the responsibilities between students and those involved in the training of students. See section 30417 for discussion.
(a)(20) – Educational program	This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. It is based on EC 94837, H&S Code 114850(f) and usage by JRCERT (References 8, 9, & 10), ARRT (References 6, & 7), and ASRT (References 16, 17, & 21).
(a)(21) – Film-screen radiography	This term is necessary for clarity to differentiate the types of imaging systems used in radiologic technology; namely, digital imaging (i.e., image is visualized through computer algorithms) and film imaging (i.e., image is visualized through a photographic, chemical process). It is based on the terms “radiography” as specified in subsection (a)(36), and the term “image receptor” found in 21 CFR 1020.30(b). In film imaging systems, the image (e.g., the radiograph) is a plastic film that is placed on a lighted box (e.g., a light box) to clearly see the image. This is the typical type of X-ray image seen in many TV medical shows. The procedure to create such an image requires the X-ray source, the patient, and the image receptor that contains the unexposed film to be aligned so the intended body part is

	<p>exposed to X-rays. After the patient is X-rayed, the film is placed into a chemical processor in which the film travels through the chemical developer, the chemical fixer, washed, and dried. Once dried, the radiograph can be viewed on a light box. This is the same process for developing photographic film.</p> <p>The word “screen” refers to the fluorescent screen that is inside the image receptor; the film is also inside the image receptor sandwiched between, in most cases, two screens. When X-rays hit these screens, the screens emit light exposing the film. By using screens to expose the film, much less radiation is needed to create the image than exposing the film directly to X-rays. The definition encompasses any imaging method (e.g., use of screens with film or use of film only) that requires the image to be visualized through chemical processing but does not include digitization of an X-ray image.</p>
(a)(22) – Fluoroscopy	<p>This term is recodified from section 30400.40 to this subsection so that all terms used within Title 17, Division 1, Chapter 5, Subchapter 4.5 are easily found. This is a nonsubstantial change.</p> <p>The current definition of the term is proposed to be amended to address technological changes and for clarity. The existing definition is based on “fluorescence” of certain inorganic salts (called phosphors); that is, the giving off of light when the phosphor is excited by X-rays. However, newer equipment no longer uses phosphors. Instead, solid-state detectors convert the X-ray energy to an electronic pulse, which is electronically processed into an image. Thus, the current definition is amended for consistency with the U.S. Food and Drug Administrations’ fluoroscopy definition in 21 CFR 1020.30(b).</p>
(a)(23) – Indirect oversight	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of the responsibilities between students and those involved in the training of students. See section 30417 for discussion.</p>
(a)(24) – Lead supervising licentiate	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of the responsibilities between students and those involved in the training of students. See section 30417 for discussion.</p>
(a)(25) – Licentiate of the healing arts	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of a regulatorily used term. It is necessary to</p>

	include the phrase “for purposes of this subchapter” in the definition because the RT Act defines the phrase “licentiate of the healing arts” to mean any licensed doctor of medicine, osteopathy, podiatry, or chiropractic (H&S Code 114850(h)(1)). The RT Act definition is very lengthy as it quotes the title of the original chiropractic initiative act. Thus, the proposed definition is shortened for brevity and clarity between the RT Act and its implementing regulations and maintains consistency with common terminology.
(a)(26) – Limited permit	This term is necessary for clarity to ensure uniform interpretation and understanding of a regulatorily used term. It is necessary to include the phrase “for purposes of this subchapter” in the definition because the RT Act also defines the phrase “limited permit.” It means “a permit issued pursuant to subdivision (c) of Section 114870 to persons to conduct radiologic technology limited to the performance of certain procedures or the application of X-rays to specific areas of the human body, except for a mammogram.” (H&S Code 114850(e).) Thus, the proposed definition is shortened and provides clarity between the RT Act and its implementing regulations, while maintaining consistency with common terminology.
(a)(27) – Limited permit X-ray technician	This term is necessary for clarity to ensure uniform interpretation and understanding of a regulatorily used term. It is based on section 30446.
(a)(28) – Limited permit X-ray technician school	This term is necessary for clarity to ensure uniform interpretation and understanding of a regulatorily used term. It is based on sections 30424 through 30427.2.
(a)(29) – Mammogram (a)(30) – Mammography	These terms are defined in H&S Code 114985(n) & (o), respectively, and are duplicated in this proposal to provide clarity and consistency with state law. Duplication is necessary to ensure all terminology used in both the RT Act and its regulations can be found in one place.
(a)(31) – Mammographic examination	This term is recodified from section 30400.60 to this subsection so that all terms used within the RT Act regulations are easily found. This is a nonsubstantial change.
(a)(32) – Mammographic radiologic technology	This term is necessary for clarity to ensure uniform interpretation and understanding of a regulatorily used term. It is based on the terminology found in the following provisions: <ul style="list-style-type: none"> • H&S Code 106965(b) & 114870(b); and

	<ul style="list-style-type: none"> • 17 CCR 30455.1.
(a)(33) – Outside of Department jurisdiction	<p>This term is necessary for clarity to ensure uniform interpretation and understanding regarding the relationship of the Department to entities not subject to State law as it pertains to training of students. See section 30416 for discussion.</p>
(a)(34) – Program director	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. It is based on the following JRCERT Standards:</p> <ul style="list-style-type: none"> • “Standards for an Accredited Educational Program in Radiography,” April 2010; Standard 6.3. (Reference 8, p. 67.) • “Standards for an Accredited Educational Program in Radiation Therapy,” April 2010; Standard 6.3. (Reference 9, p. 65.) • “Standards for an Accredited Educational Program in Radiologic Sciences,” Revised 2001; Standard 6.1. (Reference 10, p. 6.)
(a)(35) – Qualified practitioner	<p>This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. It is based on the following JRCERT Standards:</p> <ul style="list-style-type: none"> • “Standards for an Accredited Educational Program in Radiography,” April 2010; Standards 4.4, 4.5, & 4.6 (pp. 51-53) for “qualified radiographer” and Standard 6.3 (p. 68) for “clinical staff”. (Reference 8.) • “Standards for an Accredited Educational Program in Radiation Therapy,” April 2010; Standard 4.4. (Reference 9, p. 51.) • “Standards for an Accredited Educational Program in Radiologic Sciences,” Revised 2001; Glossary. (Reference 10, p. 14.)
(a)(36) – Radiography	<p>This term is recodified from section 30400.85 to this subsection so that all terms used within the RT Act regulations are easily found. This is a nonsubstantial change.</p> <p>The term’s definition is amended for clarity to encompass a broader meaning that includes the use of digital imaging systems. Currently, the definition uses phraseology (e.g. “recording of static images on any suitable medium”) that may exclude digital imaging systems. The proposal is based on and consistent with the defined term “mammography” specified in H&S Code 114850(l). The phrase “procedure for creating an X-ray image” broadens the definition by including whatever procedure is used to create the X-ray image.</p>
(a)(37) – Radiologic	<p>This term is necessary for clarity even though the term and definition</p>

technology	are duplicative of H&S Code 114850(c). Although the term is commonly used, Department staff continually receive inquiries as to its definition. By placing it in the regulations, industry and staff can more easily find and understand the term when used in communications.
(a)(38) – Radiologic technology certification school	This term is necessary for clarity to ensure uniform interpretation, consistency with other proposed terminology, and understanding regarding types of X-ray schools. It is based on existing regulatory structure and other proposed terms.
(a)(39) – Radiologic technologist fluoroscopy permit school	This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term found in 17 CCR 30423.
(a)(40) – Supervising licentiate	This term is necessary for clarity to ensure uniform interpretation and understanding of the responsibilities between students and those involved in the training of students. See section 30417 for discussion.
(a)(41) – Supervision	This term is necessary for clarity even though the term and definition are duplicative of H&S Code 114850(g). Although the term is commonly used, Department staff continually receive inquiries as to its definition. By placing it in the regulations, industry and staff can more easily find and understand the term when used in communications.
(a)(42) – Therapeutic radiologic technology	This term is necessary for clarity to ensure uniform interpretation and understanding of a commonly used, undefined term. It is based on H&S Code 114850(c) and 114870(b).
(a)(43) – X-ray bone densitometry	<p>This term is recodified from section 30400.95 to this subsection so that all terms used within the RT Act regulations are easily found. This is a nonsubstantial change.</p> <p>The term is amended for clarity by replacing the word “ganged” with the word “joined.” Use of the word “ganged” creates confusion because its grammatical usage is seldom encountered in the industry.</p>
(a)(44) – XT	This acronym is necessary to provide consistency and brevity. It is based on 17 CCR 30446.

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Repeal **section 30400.5** and recodify the defined term to section 30400(a)(4).

Repeal **section 30400.40** and recodify the defined term to section 30400(a)(22).

Repeal **section 30400.60** and recodify the defined term to section 30400(a)(31).

Repeal **section 30400.85** and recodify the defined term to section 30400(a)(36).

Repeal **section 30400.95** and recodify the defined term to section 30400(a)(43).

Amend the title of **Article 3** to reflect the content of sections within the article. This is a nonsubstantial change.

Amend **section 30403** to both address the problems and realize the benefits as stated regarding this regulatory action and to address RTCC's recommendation that individuals who use fluoroscopy X-ray equipment obtains four approved continuing education (CE) credits in radiation safety for the clinical uses of fluoroscopy and that four CE credits be devoted to education in digital radiography and to restructure the section for clarity.

Existing subsections (a) and (c) are combined and reformatted in proposed subsection (a). RTCC recommended that individuals (licentiates and non-licentiates) who are authorized to use fluoroscopy X-ray equipment should complete CE training that focuses on radiation safety while using that equipment. The Department agrees with RTCC because such equipment emits a much higher radiation dose for purposes of viewing dynamic X-ray studies. Because of the higher radiation doses present during such studies, operators must be highly vigilant to protect themselves and others from unnecessary radiation exposures. Fluoroscopy studies generally require the operator to be very close to the radiation source and the patient, to wear protective aprons, and sometimes gloves, since the radiation level in the room, due to scattering of X-rays off any matter being hit, increases. Thus, radiation safety and protection awareness is a constant issue. Subsections (a)(2) and (b) (second sentence) address RTCC's recommendation.

RTCC also recommended that individuals using digital radiography equipment should devote four CE credits to the area of digital radiography. The Department agrees with RTCC because there are different imaging issues (computerized vs. film-screen image processing (chemical)) that operators must account for. As specified in H&S Code 114870(b)(2) and (c)(3), the Department is to provide for this requirement upon RTCC's recommendation. Subsection (a) addresses RTCC's recommendation.

As proposed, the total number of CE credits remains at 24 but if an individual holds any of the specific authorizations the individual must apportion those CE credits in specific categories that relate to the particular authorization. However, because some CE credits may overlap, it is clarified that CE credits can be applied to any applicable category so that a person is required to obtain no more than 24 CE credits.

Existing subsection (b) requires licentiates to obtain a total of 10 CE credits. As recommended by RTCC, the total number of CE credits remains at 10 but, if the individual holds the fluoroscopy permit, the individual must obtain four CE credits that focus on radiation safety while using fluoroscopy equipment.

Existing subsection (c) is partially deleted and redesignated to subsection (a). Subsection (c)(1) is maintained and redesignated to subsection (a)(1). Subsection (c)(2) is deleted. It was initially adopted in 2001 to address the federal Mammography Quality Standards Act of 1992 (MQSA) requirement found in 21 CFR 900.12(a)(2)(iv), which requires the technologist to have performed, every two years, at least 200 mammographic examinations. However, MQSA applies only to screening and diagnostic mammography procedures but does not apply to procedures used for interventional purposes such as biopsying breast tissue or placement of a needle into possibly cancerous tissue for surgical purposes. The Department issues a Mammographic Radiologic Technology Certificate pursuant to section 30455.1 that authorizes the holder to perform such mammographic procedures. A technologist may also, or only, perform procedures that are not subject to MQSA. Existing subsection (c)(2) places an unreasonable burden on such technologists. By deleting subsection (c)(2) it removes a burdensome and duplicative requirement. Although, deleting subsection (c)(2) removes the California renewal requirement that a mammography radiologic technologist perform at least 200 examinations, the technologist, if performing screening or diagnostic mammography, still must comply with the federal 200 mammographic examination requirement under MQSA.

Subsection (d) is deleted as it is no longer necessary. It was used for implementation of the CE credit requirement in 2001. Pursuant to section 30403.5, CE credits must be submitted during renewal of the authorization.

Amend **section 30403.5** to both address the problems and realize the benefits as stated regarding this regulatory action and to address changes within this proposal, modify what information must be submitted for approved CE credit, and to require that when licentiates renew their authorization they include the license number and expiration date indicated on their healing arts license. The section is restructured to maintain a coherent structure and is a nonsubstantial change.

Subsection (a) is amended to require licentiates to include, with their renewal application, the license number and expiration date of their professional license. This helps to ensure that the individual is legally authorized to practice the particular

profession in California. During a recent inspection, it was determined that an individual possessed a current and valid Department-issued authorization but the individual's professional license was invalid and had been for nearly two years and yet the individual was still practicing the profession. The problem was reported to the State licensing agency and a determination was made on whether the Department issued authorization was valid if the individual's professional license was invalid.

Based on the following, it was determined that a Department-issued certificate or permit issued to a licentiate of the healing arts was valid only if the underlying professional license is valid because the professional license establishes the individual's legal authorization for obtaining the Department document. Therefore, the Department-issued document is inextricably tied to the professional license and is addressed regarding section 30467.

- H&S Code 107110: It is unlawful for any licentiate of the healing arts to administer or use diagnostic, mammographic, or therapeutic X-ray on human beings unless specific criteria are met.
- H&S Code 114850(h)(1): "Licentiate of the healing arts" means a person licensed as a medical, osteopathic, chiropractic, or podiatric doctor.
- 17 CCR 30468(c), redesignated to section 30466(a)(1)(C), requires evidence the applicant hold's a valid California healing arts license.

Subsection (b) is amended to address changes proposed regarding section 30403. The phrase "subsections (a), (b), and (c)(1)" is deleted as unnecessary because section 30403 is proposed to be restructured. Subsection (b)(1) is amended for clarity by ensuring the identity of the referenced group can be found because the defined term is proposed to be redesignated from section 30400.5 to section 30400(a)(4). Subsection (b)(2) is amended to require submittal of the CE provider's contact information. This is necessary to be able to contact the provider during audits of submitted CE information. Subsection (b)(3) is amended so the Department staff can more easily evaluate the CE instruction. Subsection (b)(5) is deleted as unnecessary and it reduces confusion for CE instruction obtained through the Internet or other instruction methods such as mail order.

Subsection (c) is deleted as unnecessary due to the proposed deletion of the requirement in section 30403(c)(2).

Subsection (d) is redesignated to subsection (c), without change, and is a nonsubstantial change.

Proposed subsection (d) is necessary to inform applicants of the Department's authority under the RT Act to deny certificates or permits.

Amend **section 30403.8** to both address the problems and realize the benefits as stated regarding this regulatory action and to reduce the record retention requirement

from five years to four years and make other changes due to changes within this proposal. Changing the retention period is necessary for clarity and consistency with authorization processes because the CE requirement is a two-year cycle as specified in section 30403. Having an odd numbered retention period and an even numbered CE requirement is confusing. Also, reducing the retention period reduces the number of documents that must be maintained by both the individual and the Department. The phrases relating to mammographic examinations are deleted for clarity due to the deletion of the requirement in section 30403(c)(2). Grammatical corrections are made for clarity.

Amend the title of **Article 4** to reflect the content of sections within the article. This is a nonsubstantial change.

Amend **section 30404** to both address the problems and realize the benefits as stated above regarding this regulatory action, to require any person who holds a certificate or permit to provide the facility with a copy of the person's authorization, and to shorten the section by combining language. Currently, individuals are required to post their certificate or permit where they perform activities. However, a facility may not allow an individual to post the document. Therefore, the section is proposed to be amended to require the individual to provide a copy of their authorization to the facility. The Department, in a future rulemaking effort, will require the facility to post the document. The title of the section is amended for clarity as to the content of the section and is a nonsubstantial change.

Amend **section 30405** to both address the problems and realize the benefits as stated regarding this regulatory action and to clarify Department actions relating to processing applications. This section was originally adopted in 1985 to address the former Permit Reform Act (PRA) that was repealed by the Legislature in 2003 (Statutes of 2003, chapter 229). Currently, the section addresses processing timelines for any application as follows:

- Subsection (a) establishes when an application is considered to be received by the Department, when the application is considered complete, and when a written notification is considered by the Department to have been received by the applicant.
- Subsection (b) establishes processing time limits and examination passage limits.
- Subsection (c) states when the Department deems an application to be abandoned by the applicant or no longer valid.
- Subsection (d) informs applicants that they may reapply by submitting a new application.
- Subsection (e) states calculated processing time periods as determined and mandated under the former PRA.

An application passes through phases as identified in the below steps. The application is received (step 1) and reviewed to determine if it is acceptable for filing or not (step 2). If the application does not contain all required information, the application is not acceptable for filing (step 2.a). If it is acceptable for filing (step 2.b), the applicant is informed of what examination they must pass within 180 calendar days. If the applicant is not required to pass an examination, the application is complete (step 3) and the certificate/permit is issued. If required to pass an examination, the application becomes complete only if the applicant passes the examination within the specified time. If the applicant fails to respond under step 2.a or fails the examination in the specified time, the application is deemed withdrawn (step 4).

1. A received application (subsection (a)(1)).
2. An application that is:
 - a. Not acceptable for filing (subsection (b)(2));
 - b. Acceptable for filing (subsection (b)(3)).
3. A complete application (subsections (a)(2), (b)(1) & (b)(3)).
4. A withdrawn application (subsection (c)).

Implementation and compliance with this section continually create confusion with applicants and Department staff. Therefore, this section is amended to reduce confusion, provide clarity on timeframes for different types of applications, and address changes made within this proposal.

Subsection (a)(1) is amended to clarify the start time of processing the specified applications. Currently, the subsection is focused on the date any application is considered to be submitted to the Department and establishes the start time for specific timeframes within the section. This has created confusion for applicants and staff alike because the provision mixes the connotations of submitted and receipt (e.g. the application is submitted when received). Instead, this proposal changes the focus to the date the application is received, removing the mixed submitted/received connotation. Thus, as proposed, receipt of an application occurs when the application is received.

Subsection (a)(2) is amended for clarity to address proposed changes to those sections addressing certification, permitting or approval eligibility. Under the former PRA, this subsection established when an application was complete, which then established the historical processing times found in subsection (e). Though the PRA is no longer effective, the Department believes that the public benefits in knowing what to expect when applying for a specific authorization. As amended, subsection (a)(2) clarifies when the application is deemed acceptable and is necessary to establish the start date of the examination passage limitation specified in proposed subsection (b)(2) and proposed section 30407(a)(1). Subsections (a)(2)(A) through (C) are necessary for clarity and to inform each type of applicant what qualification criteria must be met.

Existing subsection (b) is deleted and new subsection (b) is adopted to clarify Department actions regarding applications. This section addresses processing of

applications in general to include applications for a certificate or permit, which are issued to individuals, and applications for an approval, which is issued to schools. Existing subsection (b) is specific to certificate and permit applications. However, no other provision in this section addresses school approval applications. Thus, proposed subsection (b) addresses certificate/permit applications and subsection (c) addresses school approval applications. As it pertains to certificate/permit applications, the 30-day application review period is not changed.

Subsection (b)(1) (redesignated from subsection (b)(2)) is necessary to inform an applicant the maximum length of time the Department may need to review the application to determine if the application is acceptable. Because applicants and staff continually request clarification regarding this provision, the existing language is clarified as to what an acceptable application is. Also, it is proposed to clarify that Department requests for specific information from the applicant is limited to three submittals; namely, 1) initial application, 2) first request for additional information, and 3) a second request for additional information. This limitation is necessary because the Department often receives applications from applicants whose initial application is inadequate and then fails to adequately address additional requests for information so the Department can make a final decision. This back and forth correspondence creates confusion, lengthens the processing times, increases the risk of loss of documents, and increases staff workloads. The Department expects applicants to be fully aware of what is required to ensure the application is adequate to minimize the length of time needed to review and process an application and issue the certificate or permit in a reasonable timeframe.

Though an application may be denied for inadequacy (last sentence of proposed subsection (b)(1)), the applicant may submit a new application because the original submittal was not denied because the applicant did not qualify for examination but because the application did not include all required items and qualification could not be determined.

Subsection (b)(2) (redesignated from subsection (b)(1)) is necessary to clarify what an acceptable application is and to inform the applicant of examination deadlines. The 30-day application review period is not changed. The period of time an applicant has to pass a required examination is increased from 180 calendar days (existing subsection (b)(3)) to one calendar year. This increase in time reduces the number of applications that must be processed by staff and reduces a burdensome limitation on applicants.

Subsection (b)(3) (redesignated from subsection (b)(1)) is necessary to inform the applicant if they have met the applicable eligibility requirement. The 45-day maximum time for informing the applicant is necessary to allow the Department's examination administrator to determine the examination score through psychometric evaluation, provide finalized scores to the Department, and for staff to prepare correspondence and initiate certification/permitting issuance.

Subsection (c) is necessary to address school approval applications by informing applicants what an acceptable application is and stating specific timeframes. This proposal is based on the changes made regarding subsection (b) and clarified to apply to school approval applications. The 120-day review period is necessary to evaluate submitted information, schedule the required inspection, perform the inspection, and correspond with the applicant as needed. This review period allows both applicant and Department staff time to ensure all requirements are met and is based on staff experience in conducting school inspections.

Subsection (c)(1) is necessary to inform applicants what happens if the applicant fails to pass the inspection and is based on staff inspection experience. As proposed regarding subsection (b)(1), subsection (c)(1) limits applicant responses to Department requests for additional information to three for the same reasons stated regarding subsection (b)(1). Subsection (c)(2) is necessary so the applicant is aware of the Department's determination.

Subsections (d) and (e) (redesignated from subsections (c) and (d), respectively) are proposed to be amended for clarity due to the proposed changes within this section. Existing subsection (e) is deleted as it is no longer useful since it is based on processing activities of the early 1980's.

Grammatical and punctuation corrections are made throughout the section for clarity and consistency and are nonsubstantial.

Amend **section 30406** to both address the problems and realize the benefits as stated regarding this regulatory action and to make nonsubstantial changes to the authority and reference citation note.

Amend **section 30408** to both address the problems and realize the benefits as stated regarding this regulatory action and to make nonsubstantial changes for consistency with other proposed changes. A change in fees is not proposed. Subsections (g) through (j), which apply only to schools, are proposed to be redesignated to proposed section 30409 for clarity. Subsection (k) is redesignated to subsection (g) to maintain a coherent structure and is amended to clarify that current fees, in addition to being nonrefundable, are subject, as specified in the cited law, to legislative changes authorized in any enacted Budget Act.

Adopt **section 30409** within Article 7 of Group 1 of Subchapter 4.5 to both address the problems and realize the benefits as stated regarding this regulatory action and to specify the schedule of fees applicable to schools as currently found in section 30408 subsections (g) through (k). A change in fees is not proposed. This is a nonsubstantive change.

Amend **section 30410** to both address the problems and realize the benefits as stated regarding this regulatory action and to correctly reference that section under which schools are approved. Due to proposed changes, subsection (b)(2)(A) and (B) are amended to correctly cite that section under which schools are approved. This is a nonsubstantive change.

Adopt **section 30411** to both address the problems and realize the benefits as stated regarding this regulatory action and to specify certain restrictions and permissions. Subsection (a), though duplicative of H&S Code 106965, is necessary to clearly inform facilities and individuals of the law. Subsection (b) is necessary for clarity because some schools have been found by the Department providing X-ray training without being approved by the Department. Subsection (c) is necessary to inform schools that clinical sites must be evaluated prior to use to ensure student safety and that the facility operates safely and in accordance with the RT Act. See sections 30412 and 30414 for additional discussion. Subsection (d) is necessary to ensure that sharing of clinical sites between schools is done fairly and provides all students sufficient training sites. See sections 30412 and 30414 for additional discussion. Subsection (e) is necessary to clearly implement H&S Code 107050 as it relates to the approval of radiologic technology certification schools. This also addresses Senate Bill 1332 (Statutes of 2010, chapter 525) by deeming those schools that are accredited by JRCERT to be compliant with the cited provisions. The provision also informs schools that if the school is no longer accredited by JRCERT they become subject to the cited regulation sections.

Adopt **section 30412** to both address the problems and realize the benefits as stated regarding this regulatory action and to specify the types of school approvals issued by the Department, to identify the content of an approval application, to specify the time for which an approval is valid, and to inform applicants that they are subject to both announced and unannounced inspections.

Subsection (a) is necessary to clarify the types of schools approvals granted under the RT Act. Current regulations fail to fully or clearly identify these schools. Clearly identifying school terminology provides uniform and consistent communication between Department staff, applicants, school officials, facilities, clinical sites and the public.

Subsection (b) is necessary to state what criteria will be used to determine if approval will be granted. Subsection (b)(1) is necessary to inform the applicant they must submit specific information as referenced in section 30413. See section 30413 for further discussion. Subsection (b)(2) is necessary to inform the applicant they will be inspected before a final approval decision is made. This inspection will include at a minimum an evaluation of curricula applicable to the type of school approval requested, the implementation of the radiation safety program required pursuant to section 30420, faculty qualifications and responsibilities, clinical sites where students will perform procedures, qualifications of staff directly working with or supervising students, and

recordkeeping capabilities required pursuant to section 30437. As it pertains to commitments made in the application, see the following discussion of subsection (c).

Subsection (c) is necessary to inform applicants that the Department will hold the applicant responsible for any commitments made in the application. The Department continues to obtain applications and documents from applicants containing commitments that the applicant does not follow. These commitments are necessary for determining the applicant's ability to provide applicable training and education to the State's future workforce and that training and education is of high quality. Failure to provide quality training and education can increase the public's exposure to unnecessary and excessive radiation. However, to ensure both the Department and the applicant (and approved school) are aware of changes, the proposal informs the school that they may change commitments by providing specific information to the Department. Failure of the school to keep the Department informed of commitment changes results in unnecessary correspondence and a loss of staff time for both the school and Department. Subsections (c)(1) through (c)(3) is necessary for disclosing what is requested and an understanding of the requested change.

Subsection (d) is necessary to state when approval is granted and for how long the approval is valid. The Department proposes that a school approval be valid for one year and that approved schools need only re-validate the approval as proposed in section 30413.5. See section 30413.5 for further discussion. The one-year validity period was chosen to coincide with the annual fee cycle specified in H&S Code 107095. The following alternatives were considered but rejected as indicated:

- Follow current practice of renewing school approval every two years. School fees are billed annually. A school's clinical site is approved for a one-year period and pursuant to section 30408(h) (redesignated to section 30409(b)) pays a school fee and a clinical site fee.
 - Reject current practice due to multiple time periods creating confusion and burdensome reporting and recordkeeping requirements.
- Establish a three-year period of validity requiring renewal applications every three years. A school's clinical site would be approved for the full three-year period or less, if added during the validity period. Because the school must pay an annual fee for each clinical site (section 30409(b) as redesignated), allow the school to not pay a fee if the school informs the Department within a specific period of time that the site is no longer used by the school.
 - Reject this alternative due to multiple and confusing time periods and additional documentation burdens.
- Establish some other multi-year renewal process.
 - Reject since similar confusion and burdens as identified above may occur.

Subsection (e) is necessary to inform approved schools they are subject to announced and unannounced inspections as authorized in H&S Code 107035 and 107055.

Adopt **section 30413** to both address the problems and realize the benefits as stated regarding this regulatory action and to specify what a school, applying for approval to provide training and education, must submit before an approval can be issued. Subsection (a)(1) is necessary to uniquely identify the applicant, to allow contact with the applicant, and identify where to mail any documents.

Subsection (a)(2) is necessary to identify the school's responsible person over the program. Subsection (a)(3) is necessary to determine the type of approval the applicant school is applying for to ensure staff use the correct criteria to evaluate the applicant school. Subsection (a)(4) is needed to inform applicants that they need not submit their school's curriculum since the cited sections state what the curriculum must be. As proposed in section 30412(b)(2), the applicant must pass an inspection during which curricula will be evaluated.

Subsections (a)(5) and (a)(6)(A) are needed to ensure students are provided fair and equitable opportunities for completing clinical procedures. The total number of students a school proposes to teach is directly impacted by the total clinical capacity of its clinical sites that are proposed to be used for clinical training. This capacity is determined under subsection (a)(6)(A). (See section 30414 below for additional discussion.) Subsection (a)(6)(B) is needed to ensure that the applicant school, if applicable, has been approved or exempted from the requirements of the indicated education laws. The Department works with the Bureau of Private and Postsecondary Education (Bureau) to streamline school approval application processes when a school applicant is subject to both the Department requirements and the Bureau's requirements.

Subsection (a)(6)(C) is necessary for performing the inspection as proposed in section 30412(b)(2). Subsection (a)(6)(D) is needed to verify that the applicant has a radiation protection program and the program is designed to adequately protect students. (See section 30420 below for additional discussion.) Subsection (a)(6)(E) is necessary so the Department staff can distinguish a school's documents from fraudulent documents. Subsection (a)(7) is necessary to ensure the applicant is aware of the application and that they take responsibility for the application and its content. Subsection (a)(8) is needed to cover the Department's costs to review the application. No changes to fees are proposed.

Adopt **section 30413.5** to both address the problems and realize the benefits as stated regarding this regulatory action and to specify how a school re-validates its approval. As discussed regarding section 30412(d), current renewal processes and considered alternatives create multiple-year renewal cycles and burdensome application processes. To reduce confusing renewal cycles and additional application processes that result in submittal of large numbers of documents, the Department proposes to create a shorter re-evaluation, or maintenance type, process. Under this "re-validation" process, the school's approval is re-validated by submitting a report and the required fee. It is envisioned that this report would be very short; no more than one page long. In it the

school would attest compliance with major regulatory components. Compliance with regulations would then be evaluated during Department inspections. This removes the burdensome process of submitting numerous documents and resultant correspondence but ensures basic school information is up to date. Thus, this proposal results in reviewing the school's performance through actual on-site inspections instead of reviewing performance through a document review process.

Subsection (a) is proposed to be adopted to require a school that wishes to continue training and educating students to submit an annual report that contains specific information and the annual fee. The report must be submitted 60 days prior to the school's expiration date so Department staff can review, correspond with the school if needed, process the fee, and submit re-validated approval documents before the current approval expires.

Subsection (a)(1) lists certain items to which the school must attest they comply. By informing schools of these items, schools would be more aware that they are required to comply with specific requirements. Thus, paragraphs (A) through (F) are necessary to remind the school that compliance with the requirements is considered critical to training and educating and protecting students.

Subsection (a)(2) is necessary to cover the costs of review. No changes to existing fees are proposed. Further, this is not a new fee.

Subsection (b) is necessary to inform schools what happens if they fail to submit the annual report. This is based on the similar process found in H&S Code 107085. The approval, if the report and fees are not received within six months of the approval's expiration date, is automatically revoked because the Department no longer has confidence that the school exists or is complying with the RT Act or its implementing regulations. The six months period was chosen because it allows time for the school to respond to any Department inquiry, address any concerns, and correspond with the Department as necessary. A school's approval, if revoked under this proposal, is not subject to reinstatement because the Department's trust and confidence in the school's ability and willingness to maintain the Department's training and educational standards is lost. Because loss of approval under this proposal is less egregious than loss of approval under section 30436, the school may reapply by submitting a new initial application.

Subsection (c) is necessary to inform approved schools that the report must be complete and the fee submitted before re-validation occurs. Failure to submit a complete report increases the review time and correspondence with the school resulting in jeopardizing the school's re-validation. Failure to submit the fee may indicate the school's unwillingness to support the State's oversight of X-ray training for the benefit of the public's health.

Adopt **section 30414** to both address the problems and realize the benefits as stated regarding this regulatory action and to specify how an approved school obtains approval to use a clinical site that was not approved during the schools' initial review, to specify the period of time for which the site may be used, and to specify the calculation method for determining the maximum number of students allowed at the clinical site. Because a student's clinical training during which they perform X-ray procedures is critical for reaching competency, a school may add new clinical sites for student training. Thus, this section is necessary to inform schools they must obtain Department approval prior to allowing the student to train at the clinical site and what they must submit for consideration.

Subsection (a) is necessary to clarify that the section applies only to the approval process of clinical sites that were not approved during the initial review and approval.

Subsection (a)(1) is necessary to uniquely identify the applicant, to allow contact with the applicant, and identify where to mail any documents. Requesting the Department-issued school identification number reduces the amount of information that must be submitted.

Subsection (a)(2) is necessary to specify what information about the clinical site must be submitted. The exception regarding approved schools accredited by JRCERT is necessary to reduce duplication as JRCERT-accredited schools submit the same information to JRCERT. Subsection (a)(2)(A) is necessary to uniquely identify the clinical site and to allow contact with the clinical site because the site will be included in the school's inspection. Subsection (a)(2)(B) is necessary to verify the clinical site's X-ray equipment has been registered pursuant to the cited regulation. The registration number, including the stated name required pursuant to subsection (a)(2)(A) is necessary because the clinical site's name used by the school or the site itself is not always consistent with the site's Department-registered name.

Subsection (a)(2)(C) is necessary to ensure the student is under competent and qualified oversight or supervision. The provision applies only to limited permit X-ray technician (XT) schools because XT students nearly exclusively train in physician offices and clinics where the numbers of qualified practitioners are limited. As discussed regarding proposed section 30417, one development goal, which is also a statutory mandate (H&S Code 106975(b)), is that qualified persons oversee unqualified persons. Due to the limited number of qualified persons in physician offices and clinics, obtaining the lead supervising licentiate's information provides a level of confidence that the XT student's performance will be properly supervised. Subsection (a)(2)(D) is necessary to ensure the number of students at a clinical site does not exceed the site's available resources and allows the school flexibility to limit the number of students to less than the calculated maximum. This limitation is necessary to ensure all students are provided equal opportunity to perform required procedures and reach a level of competency to perform independently. See subsection (c) below for further discussion.

Subsection (a)(2)(E) is necessary to ensure a school and a clinical site have an agreement that provides students training opportunities. The requirement to update the agreements annually is necessary to ensure documents have current information since staffing and responsibility changes may occur. An exception to provide a copy of the agreement is proposed for schools whose clinical site is under the same business organization since a school may be a hospital and the clinical training is done within the hospital. Requiring such a school to have an agreement with itself is circularly unreasonable.

Subsection (a)(3) is necessary to identify any clinical sites the school may use that are outside the Department's regulatory jurisdiction. See proposed section 30416 for further discussion.

Subsection (a)(4) is necessary to ensure the school official or program director is aware of the application and that they take responsibility for the application and its content.

Subsection (b) is necessary to identify when the approval expires and for how long it is valid. Paragraph (1) proposes to make the clinical site approval end at the same time the school approval ends as specified in proposed section 30412(d). As discussed regarding proposed section 30412(d), current practices are confusing and resulted in clinical site approvals expiring after the approval's expiration date. This confusion has led to errors by both Department and school staff. Thus, this proposal removes confusing multi-year cycles and should reduce errors. Paragraph (2) is necessary for clarity and to inform school's that clinical site approval is valid only if the school's approval is valid.

Subsection (c) is necessary to indicate how to determine a clinical site's total clinical capacity (TCC). The TCC calculation is based on the JRCERT's calculation found in JRCERT form 104R (Reference 22) and form 104T (Reference 23). Under these calculations, the TCC is taken as the lesser value to ensure students are provided equal opportunity to perform required procedures and reach a level of competency to perform independently. Paragraph (1) applies to schools that focus on diagnostic radiologic technology and paragraph (2) applies to schools that focus on therapeutic radiologic technology. These differences are necessary because X-ray procedures used to make diagnoses and for treatment are different by nature. The major difference is the radiation exposure amount and the length of time the patient is exposed to radiation. In diagnostic procedures, the X-ray energy is generally low and the exposure time very short as compared to therapeutic procedures where energy level is very high and exposure times are often very long. Because therapeutic procedures can result in major injury or death, training of students is more controlled and supervised. Thus, because of such risks, subsection (c)(2), for the calculation of "A", takes into account proposed section 30417(e), which requires the student to be under direct oversight at all times.

Adopt **section 30415** to both address the problems and realize the benefits as stated regarding this regulatory action and to specify the minimum content that must be addressed in an affiliation agreement between an approved school and a clinical site. At the RTCC's May 2012 meeting, members asked the following, which include responses:

- Who the responsible party that executed the agreement was?
 - Response: The responsible parties are both the school and the clinical site and, together, carry-out the agreement for the benefit of students. A copy of the agreement must be submitted to the Department as proposed in section 30414(a)(2)(E).
- For XT schools, should the lead supervising licentiate sign the agreement?
 - Response: The Department believes that the person specified in proposed subsection (a)(3)(A) is adequate for purposes of who signs the affiliation agreement because proposed section 30417(a) requires the clinical site to designate in writing who the lead supervising licentiate is, who is also identified on the school's clinical site approval application as proposed in section 30414(a)(C).

Subsection (a) is necessary to identify the minimum content of an affiliation agreement. It is based on the following JRCERT standards or policies:

- "Standards for an Accredited Educational Program in Radiography," April 2010; Standard 6.4. (Reference 8, p. 69.)
- "Standards for an Accredited Educational Program in Radiation Therapy," April 2010; Standard 6.4. (Reference 9, p. 67.)
- "Standards for an Accredited Educational Program in Radiologic Sciences," Revised 2001; Standard 3.2. (Reference 10, pp. 3 & 12.)
- Policy 11-400, specifically 11-404D.iv, found within policy 11-400. (Reference 24.)

Subsection (b) is necessary to inform both the schools and clinical sites of the Department's authority to inspect as specified in H&S Code 107035.

Subsection (c) is necessary for the same reasons stated regarding proposed section 30414(a)(2)(E).

Adopt **section 30416** to both address the problems and realize the benefits as stated regarding this regulatory action, and to specify how an approved school can be authorized to use clinical sites outside of Department jurisdiction. Prior to 2006, the Department allowed schools to use clinical sites that were outside Department jurisdiction. However, because the Department had no jurisdiction over such sites, the Department could not verify training adequacy, personnel qualifications, and types of available X-ray equipment, whereas in clinical sites within Department jurisdiction training, personnel qualifications and available X-ray equipment can be verified. To

ensure students who are training for purposes of obtaining a Department-issued certificate or permit would be able to complete training in adequate facilities under supervision of qualified operators, in 2007, the Department issued to schools a letter informing the schools the Department would no longer allow such sites to be used. (Reference 12.) Due to concerns from many schools and requests from clinical sites outside Department jurisdiction to allow students to continue training, the Department issued a letter to schools stating how such sites could be used by the schools. (Reference 11.) Usage of such clinical sites by schools in accordance with the issued letter provided the Department confidence that, regardless of a clinical site being within or outside Department jurisdiction, all clinical sites would be subject to the same criteria.

Subsection (a) is necessary to identify those conditions to which the school and the clinical site must agree. The condition requiring an affiliation agreement is necessary to ensure students can complete clinical assignments should the school and clinical site decide to terminate the training relationship. Termination of training can impact students by increasing the length of education, and, possibly, the costs to students.

For the Department to have confidence that the clinical site is adequate for training students and that the Department can take necessary corrective and protective action, the clinical site must voluntarily agree to specific conditions. Subsection (a)(1) is necessary to identify the site in computer databases for the purpose of performing inspections of the X-ray equipment, radiation shielding of the facility, and the personnel providing training to students. Registration requirements include submittal of annual fees to cover the costs of registering and inspecting the facility. This proposal waives those fees because the inspection cost is covered by the school under section 30408(h) (redesignated to section 30409(b)).

Subsections (a)(2) through (a)(5) are necessary to ensure clinical sites outside Department jurisdiction provide students the same training opportunities, qualified personnel, and X-ray equipment as are provided by clinical sites within Department jurisdiction. Further, clarifying that such clinical sites are subject to inspections ensures all sites, regardless of jurisdiction, are treated equally and uniformly.

Subsection (b) is necessary to clarify that, because a clinical site outside of Department jurisdiction is not subject to the Department's regulation whereas schools are, the school is the responsible entity over the clinical site. If the clinical site fails to comply with the specified conditions after agreeing to those conditions, action to disallow the school from using the clinical site may occur.

Adopt **section 30417** to both address the problems and realize the benefits as stated regarding this regulatory action, and to clarify the supervisory relationships, responsibilities, and roles of individuals involved in the training of students. Currently, regulations fail to clarify student supervision at clinical sites and the RT Act provides

limited guidance. This section, and the following terms defined in section 30400, is proposed to accomplish the below goals:

- Direct oversight (30400(a)(19).)
- Indirect oversight (30400(a)(23).)
- Lead supervising licentiate (30400(a)(24).)
- Qualified practitioner (30400(a)(35).)
- Supervising licentiate (30400(a)(40).)

Development of this proposed section was guided by the following goals:

- Ensure consistency with the RT Act, other applicable laws (e.g., Medical Practice Act, Radiation Control Law.), and other applicable regulations.
- Ensure patient and operator health and safety.
- Ensure a qualified person oversees unqualified persons.
- Provide maximum flexibility within statutory provisions.
- Maintain consistency with JRCERT standards accounting for statutory and regulatory limitations.
- Limit regulations by focusing on public health and safety and Legislative intent.

As it relates to student supervision, the following H&S Code sections and Business and Professions Code section 2052 are summarized and were used to ensure the proposal maintained consistency with applicable laws as identified in the above goals:

- Section 106965(a)
 - It is unlawful for any person to administer or use diagnostic or therapeutic X-ray on human beings unless the person is certified or has been granted a limited permit, acts within the scope of that certificate or permit, and is acting under the supervision of a licentiate of the healing arts.
- Section 106975(b)
 - Section 106965 does not apply to students in an approved school for radiologic technologists when the student is operating X-ray machines under the supervision of an instructor who is a CRT or a certified supervisor or operator.
- Section 106980(a)
 - A non-licentiate certificate or permit holder may only use X-ray equipment under the supervision of a certified supervisor or operator⁵.
- Section 114840
 - The Legislature finds and declares that the public health interest requires that the people of this state be protected from excessive and improper exposure to ionizing radiation. It is the purpose of [the RT Act] to establish standards of education, training, and experience for persons who use X-rays on human beings and to prescribe means for assuring that these standards are met.

⁵ As implemented, the phrase “certified supervisor and operator” is used in current regulation and is proposed to be defined in this proposal. See proposed section 30400(a)(10) for discussion.

- Section 114850(f)
 - “Approved school for radiologic technologists” means a school that the department has determined provides a course of instruction in radiologic technology that is adequate to meet the purposes of [the RT Act].
- Section 114850(g)
 - “Supervision” means responsibility for, and control of, quality, radiation safety, and technical aspects of all X-ray examinations and procedures.
- Business & Professions Code section 2052(a)
 - A person may not practice or attempt to practice, or advertise or hold himself or herself out as practicing, any system or mode of treating the sick or afflicted in this state, or diagnose, treat, operate for, or prescribe for any ailment, blemish, deformity, disease, disfigurement, disorder, injury, or other physical or mental condition of any person, unless that person holds a valid, unrevoked, or unsuspended physician’s and surgeon’s certificate or is authorized to perform the act pursuant to a certificate obtained in accordance with some other provision of law.

The term “direct oversight” is defined to require the physical presence of a qualified practitioner because the practitioner has obtained a strong level of competency in performing a given procedure and therefore, is the only one who can lawfully oversee the performance of the student. As students learn to perform an X-ray procedure, they gain experience and comfort with the tasks necessary to obtain quality images, protect themselves and patients from unnecessary radiation exposure, and reach a level of competency where they can perform the procedure without the physical presence (referred to as indirect oversight) of the qualified practitioner. As proposed, once the qualified practitioner determines a student can perform the procedure competently, the student can, from that point forward, perform the procedure under indirect oversight.

Subsection (a) is necessary to ensure student training is adequate, medically necessary, and lawful. Designation of a lead supervising licentiate (LSL) is necessary so that both students and qualified practitioners know who they can consult with and appeal to regarding problems with training or conditions at the site. Currently, clinical sites are not required to designate a person as lead supervising licentiate over student training. During inspections, the Department has found sites with very little or no supervision of student training. Further, students have contacted Department staff on how to handle supervision issues at the clinical site when school and clinical staff are unable to address their issue. Thus, this proposal would provide students with clear knowledge of who is responsible for student training activities at each site.

Subsection (a)(1) is necessary to specify the LSL’s qualifications for approved schools teaching diagnostic radiologic technology. This is based on H&S Code 106975(b) and existing regulations (sections 30460 – 30468) regarding supervision of students, technologists, and technicians. As it relates to supervision of students in a limited permit X-ray technician school for training specific to the dental X-ray laboratory permit

category, the LSL must be a licensed physician and surgeon who holds one of the authorizations specified in paragraphs (1)(A) or (1)(B). This limitation was determined as follows:

- H&S Code 106965(a) makes it unlawful for any person to administer diagnostic X-ray to a human unless that person is certified or permitted, acts within the scope of that certification or permit and acts under supervision of a licentiate of the healing arts. A licentiate of the healing arts is defined in H&S Code 114850(h)(1)⁶ to be a licensed medical, osteopathic, chiropractic or podiatric doctor (MD, DO, DC, or DPM, respectively). Dental X-rays are not within the licensure scope of either a DC or a DPM. Thus, under this section, only an MD or DO can act in the capacity of supervision except as provided in H&S Code 106975(f).
- H&S Code 106975(b), (e), and (f) provide exemptions to H&S Code 106965 and address scenarios that address supervision as defined in H&S Code 114850(g).
 - Subdivision (b) exempts from certification/permitting requirements students in an approved school for radiologic technologists provided that when the student is operating X-ray machines the student is under supervision of either a CRT or certified supervisor or operator. Though this subdivision uses the phrase “approved school for radiologic technologists”, the subdivision is not limited to students who are in a “radiologic technology certification school,” defined in proposed section 30400, because the term in H&S Code 114850(f) is broadly defined and includes “limited permit X-ray technician schools,” defined in proposed section 30400. Thus, as it relates to who may supervise a student in a dental X-ray laboratory school, this subdivision only allows a CRT or certified supervisor or operator to provide that supervision. Further,
 - A certified supervisor or operator is defined in H&S Code 114850(i) to mean a licentiate of the healing arts who has been certified to supervise or operator X-ray machines, or both. As implemented in regulation, certification is issued to authorize the holder to both supervise and operate X-ray machines. As discussed above regarding H&S Code 106965(a) and the type of licentiate who must supervise the administration of X-ray, dental X-rays are not within the licensure scope of either a DC or a DPM and the CDPH-issued certification cannot expand that licensure. Therefore, only a certified MD or DO may supervise students in a dental X-ray laboratory school.
 - As it relates to CRT’s, the Department believes that the CRT may only provide supervision to the extent that they observe, and correct as needed, the performance of the student who is performing the procedure, but is not providing supervision such that

⁶ H&S Code 114850(h)(2) does not apply to this discussion because subdivision (h)(2), regarding physician assistant, is limited to the authorization specified in H&S Code 114872; namely, fluoroscopy.

the CRT is making an independent decision that the patient needs to have X-rays administered. Such a decision falls within the practice of medicine as indicated in Business and Professions Code (B&P Code) section 2052 and would, if convicted, invoke H&S Code 107070(c) resulting in revocation of certification. This supervision limitation is captured in the terms of “direct oversight” and “indirect oversight” defined in proposed section 30400 and the establishment of a LSL.

- Subdivision (e) exempts licensed dentists and persons who, under the supervision of a licensed dentist, operate only dental radiographic equipment for the sole purpose of oral radiography. This exemption applies only if those persons have complied with B&P Code 1656. Because dental X-ray laboratories are independent facilities and the X-ray machine operators do not meet B&P Code 1656, the exemption no longer applies and the person becomes subject to H&S Code 106965.
- Subdivision (f) exempts certain certified/permitted persons who perform dental radiography in a dental X-ray laboratory from the “licentiate of the healing arts” supervision requirement in H&S Code 106965(a) but requires supervision [of the application of diagnostic X-ray to a human being] be documented. That document must be a written order of a licensed dentist.
- H&S Code 106980(a) states that certification in radiologic technology pursuant to H&S Code 114870(b) (CRT authorization) or 114870(c) (limited permit authorization) does not authorize the use diagnostic X-ray equipment except under supervision of a certified supervisor or operator. Because a licensed dentist, under the RT Act, is not included in the definition of “certified supervisor or operator”, a student in a dental X-ray laboratory may only be supervised, for purposes of H&S Code 106975(b) and determining whether administration of X-ray is needed, by an MD or DO.

Subsection (a)(2) is necessary to specify the LSL’s qualifications for approved schools teaching therapeutic radiologic technology. This is based on H&S Code 106975(b) and existing regulations (sections 30460 – 30468) regarding supervision of students, technologists, and technicians. The LSL must hold the radiology supervisor and operator certificate because the certificate authorizes the holder to use and supervise both diagnostic and therapeutic radiologic technology procedures. These certificates are issued only to licensed physicians whose specialty is radiology or radiation oncology. Because holders of permits (17 CCR 30461) are not authorized to use or supervise therapeutic radiologic technology procedures, only a certificate holder may function as the LSL.

Subsection (b) is necessary to identify the LSL’s responsibilities and establishes a responsibility hierarchy within the clinical site. The LSL need not be physically present or available for immediate consultation by students, technologists, or technicians at all times. It allows the LSL to ensure the students, technologists, or technicians can

always consult with a licentiate as needed. This structure (formal or informal) is common-place within facilities such as hospitals, large clinics, radiology offices, and multi-physician offices. Subsection (b)(1) is necessary to clearly inform the LSL that they are responsible for student training as discussed regarding subsection (a). Subsection (b)(2) is necessary to provide flexibility for staffing rotations and ensures a licentiate is available for consultation by staff and students as needed. Subsection (b)(3) is necessary to inform the LSL they are responsible for ensuring students can complete clinical training assignments. Cutting short the training assignment can impact the student's education and training by increasing the student's costs and length of time needed to complete their education.

Subsection (c) is necessary to specify when diagnostic radiologic technology students must be under direct or indirect oversight and to accomplish the goal of ensuring qualified person oversee the training of unqualified persons. This proposal is based on how schools currently practice and on the following JRCERT standards:

- "Standards for an Accredited Educational Program in Radiography," April 2010; Standard 4.4, 4.5, & 4.6 (Reference 8, pp. 47, 51-53.)
- Standards for an Accredited Educational Program in Radiation Therapy, April 2010, Standard 4.4 (Reference 9, pp. 47 & 51.)
- "Standards for an Accredited Educational Program in Radiologic Sciences," Revised 2001; Standard 8.4, 8.5, 8.6, & 8.7 (Reference 10, pp. 10 & 13.)

Subsection (d) is necessary to ensure therapeutic radiologic technology students remain under direct oversight at all times due to the high risk of injury to patients during radiation therapy procedures. This is based on the following JRCERT standards:

- Standards for an Accredited Educational Program in Radiologic Sciences, April 2010, Standard 8.4. (Reference 10, pp. 10 & 13 ("direct supervision").)
- Standards for an Accredited Educational Program in Radiation Therapy, Standard 4.4 (Reference 9, pp. 47 & 51).

Subsection (e) is necessary because the number of procedures one must perform is minimal. The length of time needed to complete this educational program is short and training is very focused such that programs have found it more efficient and effective for supervising staff to be present with students than to establish both direct and indirect oversight processes within the program.

Subsection (f) is necessary to specify the qualifications of those providing direct or indirect oversight. Subsection (f)(1) is based on H&S Code 106975(b) and subsection (f)(2) is based on the following JRCERT standards:

- Standards for an Accredited Educational Program in Radiography, April 2010; Standard 6.3 (Reference 8, p. 67.)
- Standards for an Accredited Educational Program in Radiation Therapy, Standard 4.3, 4.4 & 6.3 (Reference 9, pp. 47, 50, 51 & 65.)
- "Standards for an Accredited Educational Program in Radiologic Sciences,"

January 2001; Standard 8.4, 8.5, 8.6, & 8.7 (Reference 10, pp. 10 &14.)

Subsection (f)(2) also requires the qualified practitioner to have at least two years of radiologic technology experience. This is necessary to ensure the student is overseen by a practitioner who has gained a strong level of competency. It is based on the above cited JRCERT standards. JRCERT's standards (References 8, 9, & 10) require clinical staff to hold specific ARRT certificates and be current ARRT-registrants. Under ARRT's structure, a person who passes the appropriate examination is considered certified and then upon renewal of the certification, becomes a registrant.

(<https://www.arrt.org/Registration/Certification-vs-Registration>.) This subsection also provides an exception since certified supervisor and operators, who are licentiates, have already achieved a high level of experience in overseeing procedures.

Subsection (g) is necessary so the Department can verify students are supervised as required and those providing oversight are qualified.

Adopt **section 30418** to both address the problems and realize the benefits as stated regarding this regulatory action and to specify required personnel and personnel qualifications as recommended by RTCC. Currently, all approved schools have a program director and clinical coordinator(s) and individuals who teach didactic subjects. The program director, in general, oversees the entire educational program to ensure it meets student's needs. In general, the clinical coordinator ensures students have equal opportunity to perform required procedures at clinical sites. Requiring schools to have a program director (subsection (a)(1) for RT certification schools and subsection (b)(1) for limited permit XT programs) and a clinical coordinator (subsection (a)(2) for RT certification schools and subsection (b)(2) for XT programs) is based on the following JRCERT standards:

- "Standards for an Accredited Educational Program in Radiography," April 2010; Standard 2.2. (Reference 8, p. 24.)
- "Standards for an Accredited Educational Program in Radiation Therapy," April 2010; Standard 2.2. (Reference 9, p. 24.)
- "Standards for an Accredited Educational Program in Radiologic Sciences," January 2001; Standard 6.1. (Reference 10, p. 6.)

Subsections (a)(1)(A) through (C) and subsection (a)(2) are necessary so schools know what qualification criteria the program director and clinical coordinator must meet. Subsection (a)(2) also specifies when a clinical coordinator is required and is based on RTCC's recommendation (Attachments 1, 2 & 4) and the following JRCERT standards. The faculty qualification criteria are based on the following JRCERT standards as recommended by RTCC:

- "Standards for an Accredited Educational Program in Radiography," April 2010; Standard 6.3. (Reference 8, p. 67.)
- "Standards for an Accredited Educational Program in Radiation Therapy," April 2010; Standard 6.3. (Reference 9, p. 67.)

- “Standards for an Accredited Educational Program in Radiologic Sciences,” January 2001; Standard 6.1. (Reference 10, p. 6.)

Subsections (a)(1)(C) and (b)(1)(C) are necessary to clarify what authorization must be held by the program director and to address RTCC’s recommendations. This is based on the scope of authorization for licentiates (17 CCR 30460 – 30468), CRTs (17 CCR 30440 & 30451), XTs (17 CCR 30444), and H&S Code 106975(b).

Subsection (b)(2) is necessary to specify the limited permit XT school’s clinical coordinator’s qualifications. Paragraphs (2)(A) through (C) are based on RTCC’s recommendations (Attachment 4) and modified for consistency with subsections (a)(1)(A) through (C) as discussed above.

Subsection (b)(2) is necessary to specify when XT programs must have a clinical coordinator (CC). The triggering criteria in subsection (b)(2) is different than the criteria proposed in subsection (a)(2). The difference under this proposal is that an XT program would have to have one CC for every six clinical sites (or fraction thereof). For example, one CC is required if the school has six or fewer sites; two, if the school has seven to 12; three, if the school has 13 to 18. Under subsection (a)(2), at least one CC is required if the RT certification school has six or more clinical sites. The need for this difference is based on staff experience during inspections of XT programs, numerous compliance difficulties with XT programs and clinical sites where XT students perform procedures, and the historically low credentialing examination passage rates of XT program students. Thus, to assist XT programs in increasing the quality of educational programs and to strengthen a student’s ability to protect the public health and safety from excessive and unnecessary radiation, the Department believes that additional oversight of student training is needed. This additional oversight by the schools is necessary because nearly all XT programs use clinics and private physician offices as clinical sites, which are often, distance wise, widely spread throughout the city, county or regional area.

Subsections (a)(2) and (b)(2) also limit how many individuals can share the CC position. This limitation is based on the following JRCERT standards:

- “Standards for an Accredited Educational Program in Radiography,” April 2010; Standard 2.2. (Reference 8, p. 24.)
- “Standards for an Accredited Educational Program in Radiation Therapy,” April 2010; Standard 2.2. (Reference 9, p. 24.)
- “Standards for an Accredited Educational Program in Radiologic Sciences,” January 2001; Standard 6.1 & Glossary for definition of “clinical coordinator”. (Reference 10, pp. 6 & 12.)

Subsection (b)(2) further provides an exception to XT programs whose clinical sites are within the same business entity as the school. This is necessary for the reasons stated regarding proposed section 30414(a)(2)(E).

Subsections (a)(1)(A), (a)(2)(A), (b)(1)(A), and (b)(2)(A) require faculty to obtain the specified degree by January 1, 2016. This is necessary to ensure the faculty has reached an academic level deemed by the industry as appropriate to provide strong educational programs. Currently, all X-ray school program directors and clinical coordinators meet the proposal. This is based on JRCERT Policy 11.104C (Reference 24) and RTCC's recommendations (Attachments 1, 2, & 4).

Subsection (c) is necessary to ensure instructors are qualified to provide the specified instruction to students. This is based on RTCC's recommendations (Attachments 1 through 4), public comments received during the RTCC's May 2, 2012 public meeting, and the following JRCERT standards for didactic program faculty:

- "Standards for an Accredited Educational Program in Radiography," April 2010; Standard 6.3. (Reference 8, pp. 67 & 68.)
- "Standards for an Accredited Educational Program in Radiation Therapy," April 2010; Standards 6.3. (Reference 9, pp. 65 & 66.)
- "Standards for an Accredited Educational Program in Radiologic Sciences," January 2001; Standard 6.1. (Reference 10, p. 6.)

Subsection (d) is necessary to ensure staff can adequately perform those responsibilities specified in proposed section 30419. This is based on the following JRCERT standards:

- "Standards for an Accredited Educational Program in Radiography," April 2010; Standard 2.2. (Reference 8, p. 24.)
- "Standards for an Accredited Educational Program in Radiation Therapy," April 2010; Standard 2.2. (Reference 9, p. 24.)
- "Standards for an Accredited Educational Program in Radiologic Sciences," January 2001; Standard 6.1. (Reference 10, p. 12 for "clinical coordinator".)

Adopt **section 30419** to both address the problems and realize the benefits as stated regarding this regulatory action and to identify the responsibilities of the program director, clinical coordinator, and didactic instructors. Subsections (a), (b), and (c) are necessary to ensure the school's program director oversees critical components of the program and the clinical coordinator and didactic instructors ensure clinical education is supported and equitable for all students. The specified responsibilities are based on the following JRCERT standards as recommended by RTCC (Attachments 1 through 4):

- "Standards for an Accredited Educational Program in Radiography," April 2010; Standard 3.8. (Reference 8, pp. 42-44.)
- "Standards for an Accredited Educational Program in Radiation Therapy," April 2010; Standard 3.8. (Reference 9, pp. 42-44.)
- "Standards for an Accredited Educational Program in Radiologic Sciences," January 2001; Standard 6.2. (Reference 10, pp. 7-8.)

Amend **section 30420** to both address the problems and realize the benefits as stated regarding this regulatory action and to specify that each school must have a radiation protection program (RPP) and what the RPP must address. Radiation protection guidelines and practices, as documented in an RPP, are intended to ensure radiation exposures of workers and the public do not exceed certain regulatory dose levels and that those radiation doses are kept as low as is reasonably achievable (ALARA). ALARA means making every reasonable effort to maintain exposures to radiation as far below the dose limits as is practical consistent with the purpose for which the activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed materials in the public interest. (Title 10, Code of Federal Regulations, (10 CFR) section 20.1003⁷, "ALARA", incorporated by reference in 17 CCR 30253.)

Use of X-ray machines is regulated under the Radiation Control Law (RCL) (H&S Code 114960 et seq.), and, as it relates to performance of radiologic technology, each X-ray facility must have an RPP (10 CFR 20.1101 incorporated by reference in 17 CCR 30253) and the facility is responsible for the radiation doses received by both workers and the public from the facility's radiation sources (10 CFR 20.1201 through 20.1302 incorporated by reference in 17 CCR 30253). Under the RT Act, students must perform actual X-ray procedures, which are performed in X-ray facilities subject to RCL. X-ray schools affiliate with X-ray facilities so the school's students can perform the required procedures. However, because each X-ray facility that allows RT Act students to perform procedures is responsible for the student's radiation exposure, oversight of the student's exposure becomes disjointed resulting in failure to identify poor radiation protection practices by the student, the facility's personnel, or defective X-ray equipment. To prevent such occurrences and ensure student protection, it is necessary to require schools to have an RPP (subsection (a)) and be responsible for the student's radiation exposure oversight. However, an X-ray facility remains responsible for complying with the RCL and its implementing regulations.

Subsection (a)(1) is necessary to ensure the school's RPP has managerial oversight with backup personnel, is implemented, and is maintained for student protection. It is necessary to require documentation of personnel acceptance to ensure designated individuals are aware of their responsibility to the school and CDPH. Failure of awareness could prolong poor radiation protection actions due to personnel confusion or obfuscation. CDPH proposes that the school decide personnel qualifications based on the identified responsibilities.

⁷ The short format "10 CFR 20.1003" for a given federal regulation will be used throughout this document for brevity.

Subsection (a)(1)(A) is necessary to ensure the RPP remains valid and usable for the school. It is based on 10 CFR 20.1101(c) incorporated in 17 CCR 30253. Subsection (a)(1)(B) is necessary to clarify that the radiation safety officer's (RSO) responsibilities are broad in that the RSO ensures all individuals including students, teachers, instructors, program director, clinical coordinator, and other school personnel comply with the established RPP. Subsection (a)(1)(C) is necessary to evaluate if the student's radiation exposure exceeds regulatory limits. The 10-day review requirement is necessary to quickly recognize any increased dose values that may indicate poor radiation protection practices by the student or facility personnel. The number of days in which the review must occur is based on staff experience and the need to quickly determine if students follow established radiation protection recommendations, especially for pregnant students. Subsection (a)(1)(D) is necessary to ensure managerial oversight by the RSO of radiation accidents, incidents, and errors that could jeopardize student protection. Subsection (a)(1)(E) is necessary to clarify who is responsible for the school's compliance with the cited regulations and ensures orderly oversight of the school's radiation sources.

Subsection (a)(2) is necessary to ensure the school oversees student's radiation exposure. Because radiation cannot be seen, tasted, felt, or sensed by humans, an individual must wear personnel monitoring equipment. Such equipment is often called a film badge, or badge, and is small and often worn at the collar. (The word "badge" will be used to refer to such equipment as it is commonly used and there are other types of devices that are used for radiation monitoring.) Without use of badges, a student's radiation exposure cannot be discerned so as to keep exposures ALARA. This is based on 10 CFR 20.1502 incorporated by reference in 17 CCR 30253, except that, as proposed, a school must provide the badges and monitor the student's radiation exposure regardless of the triggering values found in 10 CFR 20.1502(a)(1), (2), or (3). It is necessary to disallow use of the triggering values because students are in the learning process and have little to no experience working around radiation. This provides some confidence that a student's radiation exposure is ALARA.

Subsection (a)(3) is necessary to ensure the monitoring badge is processed by a qualified dosimetry processor. This is based on 10 CFR 20.1501 incorporated by reference in 17 CCR 30253 and is the same standard all X-ray facilities are subject to under the RCL and its implementing regulations. Using a lessor qualified processor could result in failure to recognize a student's high radiation exposure and poor protective practices, or defective X-ray equipment.

Subsection (a)(4) is necessary to ensure student radiation exposures are compared against specific dose values. Without making comparisons to specific values, monitoring is useless. Paragraph (A) is necessary to identify the applicable occupational dose limits and where to find them. All users of radiation sources are subject to those limits under the RCL and its implementing regulations. Thus, the schools would be comparing exposures to the same limits the industry uses. Paragraph

B is necessary to ensure exposures are compared to developed investigational levels, and is discussed further regarding subsection (a)(5).

Subsection (a)(5) is necessary to allow for quick response to possible radiation safety issues. Because the purpose of radiation protection is to prevent or limit the amount of radiation a person gets, establishing investigational levels provide a measure of safety by allowing time to take corrective action before an individual exceeds the regulatory occupational dose limits. Waiting for an individual to reach the limit and then taking action defeats the purpose of radiation protection and places the individual at high risk for cancer development, injury or death. The radiation industry, in general, uses such levels extensively. How those levels and actions are established are at the school's discretion but will be evaluated during inspection to ensure the methodology accomplishes the goal of radiation protection. Requiring student's to be informed of the investigational levels and actions is necessary so the student is aware of the levels and actions and is aware of industry expectations and practices.

Subsection (a)(6) is necessary to ensure the school is allowing its students to train only in clinical sites that also have an RPP, which indicates that the site is compliant with the RCL and its implementing regulations. A clinical site that does not have an RPP is likely violating existing laws and regulations but may also be jeopardizing worker and public health and safety.

Subsection (a)(7) is necessary to ensure the school has policies regarding pregnant students and that those policies meet the cited regulations. All radiation users under the RCL and its implementing regulations are subject to this standard. Imposing this requirement on schools ensures pregnant students are protected using the same standard industry uses. This is also consistent with the following JRCERT standards:

- "Standards for an Accredited Educational Program in Radiography," April 2010; Standard 4.2. (Reference 8, p. 49.)
- "Standards for an Accredited Educational Program in Radiation Therapy," April 2010; Standard 4.2. (Reference 9, p. 49.)
- "Standards for an Accredited Educational Program in Radiologic Sciences," January 2001; Standard 8.2. (Reference 10, p. 10.)

Subsection (a)(8) is necessary to inform the schools they must provide students with radiation exposure reports. This is based on the cited sections as all radiation users under the RCL and its implementing regulations must provide these reports to any worker, as defined in section 30100, with the applicable report. The proposal clarifies how the cited provisions apply to the school and is based on the cited regulations.

Subsection (d) is necessary to inform schools that they must retain records that demonstrate compliance. This allows the Department to evaluate the school's radiation protection program to ensure students are protected from excessive radiation levels during training.

Amend **section 30421** to both address the problems and realize the benefits as stated regarding this regulatory action, and to address RTCC's recommended changes to the diagnostic radiologic technology certification curriculum. (Attachment 1.) The recommendations are very broad and essentially duplicative of JRCERT's standards (References 8 & 10.) Many of the proposed changes in sections 30400 and 30411 through 30422 address the JRCERT standards as discussed in each particular section. Some recommendations are not addressed in this proposal as they are addressed in existing educational standards of the University of California, the California State University, Community Colleges, and the Bureau of Private and Postsecondary Education. This section focuses only on the specific educational curriculum as recommended by RTCC and used by JRCERT.

Subsection (a) is necessary to specify the didactic educational component students must complete. The ASRT's radiography curriculum dated 2012 is incorporated by reference. This is based on the following JRCERT standards to ensure students receive education specific to diagnostic radiologic technology:

- "Standards for an Accredited Educational Program in Radiography," April 2010; Standard 3 & 3.2 (Reference 8, p. 34 & 36.)
- "Standards for an Accredited Educational Program in Radiologic Sciences," January 2001; Standard 4, (Reference 10, pp. 4 & 14 for "Recognized and Accepted Curriculum".)

Subsection (b) is necessary to specify the clinical training component students must complete. The ARRT's clinical competency requirements effective January 2012 is incorporated by reference. This is based on RTCC's recommendation to retain the current number of clinical training hours and to use the ASRT's Radiography Curriculum regarding clinical competency in clinical practice. (Reference 16, p. 3.)

Subsection (c) is necessary to inform schools of the mandate in H&S Code 106985(e). Though duplicative of H&S Code 106985(d), this proposal clarifies that the performance of venipuncture must be on a living human being as based on the enacted provision and legislative analyses. (http://www.leginfo.ca.gov/cgi-bin/postquery?bill_number=sb_571&sess=9798&house=B&author=wright.)

Adopt **section 30422** to both address the problems and realize the benefits as stated regarding this regulatory action, and to address RTCC's recommended changes to the therapeutic radiologic technology certification curriculum. (Attachment 2.) The recommendations are very broad and essentially duplicative of JRCERT's standards (References 9 & 10.) Many of the proposed changes in sections 30400 and 30411 through 30422 address the JRCERT standards as discussed in each particular section. Some recommendations are not addressed in this proposal as they are addressed in existing educational standards of the University of California, the California State University, Community Colleges, and the Bureau of Private and Postsecondary

Education. This section focuses only on the specific educational curriculum as recommended by RTCC and used by JRCERT.

Subsection (a) is necessary to specify the didactic educational component students must complete. The ASRT's radiation therapy professional curriculum dated 2009 is incorporated by reference. This is based on the following JRCERT standards to ensure students receive education specific to diagnostic radiologic technology:

- "Standards for an Accredited Educational Program in Radiography," April 2010; Standard 3 & 3.2 (Reference 8, p. 34 & 36.)
- "Standards for an Accredited Educational Program in Radiologic Sciences," January 2001; Standard 4, (Reference 10, pp. 4 & 14 for "Recognized and Accepted Curriculum".)

Subsection (b) is necessary to specify the clinical training component students must complete. The ARRT's clinical competency requirements effective January 2011 is incorporated by reference. (Reference 7.) This is based on RTCC's recommendation to retain the current number of clinical training hours and to use the ASRT's Radiation Therapy Professional Curriculum regarding clinical competency in clinical practice. (Reference 17, p. 6.)

Subsection (c) is necessary to inform schools of the mandate in H&S Code 106985(e). Though duplicative of that provision, this proposal clarifies that the performance of venipuncture must be on a living human being as based on the enacted provision and legislative intent (http://www.leginfo.ca.gov/cgi-bin/postquery?bill_number=sb_571&sess=9798&house=B&author=wright).

Amend **section 30423** to both address the problems and realize the benefits as stated regarding this regulatory action, to update and clarify fluoroscopy curriculum, and to specify when the new curricula apply. This section was adopted in 1985 and established the curricula individuals must complete to be qualified to take the fluoroscopy examination (17 CCR 30451). Under this section, individuals must complete 40 hours of instruction in specific topics and complete 15 hours of laboratory experiments. The fluoroscopy examination taken by applicants was developed in the early 1980's to implement the fluoroscopy permit requirements adopted in 1985. That examination, and the training curricula, were based on machine standards of the early 1980's and have not been revised since that time. Thus, both the curricula and written examination are outdated.

As presented to RTCC, the Department proposes that the curriculum be based on the content specifications for ARRT's newly developed fluoroscopy examination (Reference 14) and to require individuals to actually perform fluoroscopy procedures under competent supervision. Currently, individuals do not need to perform actual procedures but only to perform experiments as specified in current subsection (c). To identify the knowledge and cognitive skills covered by the examination, the ARRT conducted a

practice analysis study using input from subject matter experts and related published documents such as the Department's "*Syllabus of Fluoroscopy*," 6th edition (1995) (Reference 27) and the *ASRT Fluoroscopy Educational Framework for Physician Assistants* (2009) (Framework) (Reference 28). The practice analysis resulted in a task list which serves as the basis for the content specifications.

ASRT's framework directly focuses on providing education to and ensuring clinical competence of physician assistants who use fluoroscopy in their practice. In evaluating that framework, it was noted that it substantially addressed those areas found in existing subsection (a) and required the same number of instructional hours. Under that framework, individuals also complete 40 hours of supervised clinical training during which they use fluoroscopy equipment.

Because the Department's fluoroscopy examination was developed in the early 1980's, staff evaluated ARRT's fluoroscopy examination content specifications and the ASRT's framework, and determined those standards would adequately prepare individuals to competently and safely use fluoroscopy equipment. This proposal follows those standards and would require individuals to complete 40 hours of didactic instruction and 40 hours of clinical training.

To address the transition from existing curricula to new curricula that includes supervised clinical training, the Department proposes January 1, 2015 be the start of the new curricula. This date is proposed to allow schools approximately one year to align their programs with the new curricula and is based on the assumption that this proposal would become effective in the first quarter of 2014. Even if this proposal becomes effective in the second quarter of 2014, the Department believes that schools will be able to align their programs quickly. Schools have been aware of this change, and have recommended updating both the curricula and written examinations, since 2007. Further, this proposal was presented to RTCC and the public at the October 2011 and May 2012 public meetings. Therefore, proposed subsection (h) clarifies when existing provisions no longer apply and when the new curricula apply. Subsections (a) through (d) are proposed to be amended to further clarify when the existing provisions no longer apply.

Proposed subsection (e) is necessary to inform radiologic technology fluoroscopy schools that the school must ensure students complete the specified requirements. Subsection (f) is necessary to specify the coursework and clinical training. Subsection (f)(1) is necessary to specify individuals must complete 40 hours of instruction in specific topics. The 40-hour requirement is based on ASRT's framework (Reference 28). The cited ARRT document (Reference 14) is incorporated by reference as it contains topics needed to ensure individuals obtain knowledge and an understanding of the topics applicable to use of fluoroscopy equipment.

Subsection (f)(2) is necessary to specify that individual must complete at least 40 hours

of clinical training to ensure they can safely and competently use fluoroscopy equipment. The proposal is based on ASRT's framework (Reference 28). The need to define "performance" as used in this subsection is to clarify what activity is being evaluated; namely, effective and safe use of the fluoroscopy equipment and not the performance of the actual procedure because one of the qualified individuals is not a physician and surgeon. Competent performance of the procedure may only be determined by the physician and surgeon.

Subsection (g) is necessary to ensure the individual knows how to use the fluoroscopy unit before use on a patient so as to reduce unnecessary radiation exposures due to not being familiar with the equipment. Documentation of performance is necessary to ensure the individual has actually performed procedures and that the procedures were observed by qualified individuals. The specific items that must be documented are based on the ASRT framework.

Amend **section 30424** to both address the problems and realize the benefits as stated regarding this regulatory action, to remove a time limit that is no longer needed, and to address RTCC's recommendations (Attachment 4.) RTCC's recommendations are those as recommended by its subcommittees that reviewed the existing requirements and on what current limited permit X-ray technician (XT) programs teach students. These subcommittees included XT program directors who indicated that current programs require students to complete more hours of instruction than currently required and recommended RTCC accept the increased number of hours. RTCC agreed that the increased hours would ensure students are well grounded in required topics and would be able to protect patients during X-ray procedures. Thus, XT programs already comply with the proposal. As an alternative to the subcommittee's recommendations, the ASRT's Limited X-ray Machine Operator (LXMO) Curriculum was reviewed and presented to RTCC for consideration. RTCC determined that the alternative could greatly fiscally and economically impact existing programs due to increased number of hours in nearly all educational subjects. Thus, RTCC rejected the alternative due to those impacts.

RTCC also recommended modification of the genitourinary (GU) permit category so as to create a category called Abdomen that would allow the permittee to take one X-ray view of the abdomen while the patient was in a recumbent position, but not to perform an abdomen X-ray procedure using contrast material. (Reference 2.) At the RTCC's March 16, 2011 meeting this proposed abdomen permit category was amended. Draft regulations presented to RTCC at its May 2, 2012 meeting (Reference 26), proposed to not address this recommendation, due to additional research needs, but instead proposed to delete the GU category and to address the recommendation in future rulemaking. However, RTCC repeated its recommendation believing that loss of the GU category content specified in section 30424 would be detrimental to implementing the recommendation. RTCC was informed that adoption of the proposed abdomen permit category was not contingent on the existing GU permit category content.

Therefore, creation of this new permit category is not being addressed in this proposal but will be addressed in a future rulemaking proposal so staff can accomplish the following:

- Perform a task analysis to ensure any developed curriculum is appropriate;
- Evaluate alternative methods of implementation; and
- Determine whether a psychometrically valid examination is available nationally or if an examination must be developed and to ensure any examination used properly tests the knowledge, skills, and abilities of the examinee and is based on developed curriculum.

Subsection (a) is amended to delete references to certain XT permit categories as those categories were recommended by RTCC for deletion. Though the RTCC recommended modification of the GU permit category as discussed above, the Department proposed to delete that category because it has not been issued for nearly 10 years and there are no schools that are approved to teach that category. The phrase “course of study” is changed to “educational program” for consistency with this proposal.

The requirement that students complete supervised clinical education within one consecutive period of 12 months during the 24 month period is proposed to be deleted because it is no longer needed. That provision was adopted in 2001 to address the following conditions, which no longer exist or occur:

- XT schools were allowed to only teach the didactic education, or the clinical education, or both. The 2001 adoption required the school to always teach both didactic and clinical education.
- XT schools teaching only the didactic education had no responsibility to students who failed the required Department examination. Performance standards were established (17 CCR 30436(a)(1)).
- Individuals who were not permitted in a particular permit category were performing procedures in violation of the RT Act. Inspections were increased.
- The length of time it took many students to complete both the didactic and clinical education was excessive. The 2001 adoption required the school to ensure students complete all education in a 24-month period.
- Persons who returned to school to obtain training in new permit categories were failing the Department examination due to the length of time since the student had completed didactic education, which, in some cases, were many years. Performance standards were established (17 CCR 30436(a)(1)).

As recommended by RTCC, it is proposed that the program may not be less than six months. This is necessary to ensure students have enough time to learn and grasp the concepts of radiation protection being taught and can develop the skills and abilities to competently perform X-ray procedures and protect patients from unnecessary and excessive radiation exposures.

Subsection (a)(1) is necessary for consistency with the change in the number of instructional hours. The phrase “formal classroom” is deleted to allow for other methods of educating students such as distance learning through the Internet. The phrase “for each limited permit category” is deleted to only require completion of the specified subjects regardless of how many XT permit categories a student is training for. Currently, the specific subjects are completed for each permit category resulting in duplication of education, increased time to complete education, and increased costs for students and schools. Removing this duplication reduces those impacts and maintains protection of the public health and safety from radiation exposures.

The changes in subsection (a)(1) to the subject titles and number of hours are as recommended by RTCC and reflect technological changes, healthcare terminology changes, and clarification that the subject of pediatric and geriatric radiography must be addressed. Pediatric and geriatric radiography is important due to higher radiation risks for children and physical limitations of the geriatric patient.

Subsection (a)(2) is necessary to clarify the number of hours of instruction allocated between anatomy and physiology and positioning, and to delete those permit categories RTCC recommended to be discontinued. RTCC’s subcommittees recommended the specific procedures be allocated as presented to ensure students received adequate instruction in all required areas.

Subsection (a)(3) is necessary to ensure future technicians can advocate for protection of the general population from excessive or unnecessary radiation exposure when performing radiologic technology. The additional five hours are based on the experience of the limited permit X-ray technician school program directors for adequately addressing the concepts and methods of reducing radiation doses to the general population and to conduct necessary experiments.

Subsection (a)(4) is necessary for clarity since proposed subsection (a)(5) addresses quality control.

Proposed subsection (a)(5) is necessary to ensure students understand and can perform quality control (QC) procedures. These procedures are performed in all X-ray facilities. Performing image processing QC procedures is necessary to ensure high and consistent quality images.

Subsection (a)(6) (redesignated from subsection (a)(5)) is amended as recommended by RTCC. The number of chest X-ray procedures a student must perform is reduced from 100 to 50 because these procedures can be quickly learned. The number of extremity X-ray procedures is clarified to indicate that 50 must be done on upper extremities and 50 on the lower extremities. Though RTCC made no recommendation for this allocation, the Department proposes this split based on the ASRT’s LXMO curriculum. (Reference 21, p. 2.) This ensures the student performs an adequate

number of procedures for both upper and lower extremities because the current requirement allows a person to perform one upper extremity and 99 lower extremity procedures and still meet the requirement. The number of skull X-ray procedures is reduced from 100 to 40 as recommended by RTCC and its subcommittee. The Department agrees with this reduction because these procedures are performed less and less in clinics and physician offices. This is due to higher risk of neurological injuries such that patients are directed to acute care hospitals for more extensive procedures such as computerized axial tomography (e.g. CT scan, CAT scan) or other more invasive procedures.

Subsection (b) is necessary to ensure a student's clinical experience is broad enough for the individual to perform procedures for both medical and chiropractic purposes. Current regulation does not address this allocation. This limitation is necessary as there are many procedures performed only for medical purposes and not for chiropractic purposes, and vice versa. The percentage value is based on the general medical and chiropractic practice distribution throughout the state and experiences of school program directors.

Amend **section 30425** to both address the problems and realize the benefits as stated regarding this regulatory action and to address RTCC's recommended changes (Reference 1) for limited permit X-ray technician schools teaching the dental laboratory category and to make nonsubstantial changes for consistency with this proposal.

RTCC, at its May 2, 2012 public meeting, made additional recommendations based on comments from individuals in the Dental X-ray Laboratory industry that would address use of coned-beam computerized tomography (CBCT) units by XT students training for purposes of obtaining the dental X-ray laboratory permit category. This recommendation would require performance of 100 CBCT procedures and education in physics and radiation output of CBCT units as based on information to be submitted to Department staff. Staff received that information but determined that further evaluation of the proposal is needed and would need to be reviewed by RTCC as the information is inconsistent with RTCC's recommendation. Therefore, this recommendation is not addressed in this proposal but will be addressed in a future rulemaking proposal so staff can complete additional review and prepare a draft proposal for RTCC's review.

Subsection (a) is amended to ensure that terminology is used consistently with other proposed changes and for clarity. Subsection (a)(4)(E) deletes the requirement to perform lateral views of the mandible and adds performance of panoramic procedures as recommended by RTCC. The mandible views are deleted because the use of panoramic procedures has become the industry's standard. Reallocating the specific procedures aligns the requirements with industry standards.

Repeal **section 30427** as recommended by RTCC. See section 30443 for discussion.

Amend **section 30427.2** to both address the problems and realize the benefits as stated regarding this regulatory action, to address RTCC's recommendation, and to make nonsubstantial changes for consistency with this proposal. Currently, schools teaching the permit category of X-ray bone densitometry (XBD) are required to ensure students complete 22 hours of education and training and perform at least 20 procedures as specified. Further, schools are required to ensure the requirements are completed within a 12 month period. The XBD subcommittee informed RTCC that these programs are very short and that allowing a school to spread the minimal education, training, and performance over such a long period could decrease the student's retention of information and skills increasing the likelihood of credentialing examination failure. The subcommittee further recommended that completion of the course material should not be less than three days since this would require students to be in class for at least 10 hours each day. This could result in violation of school or accreditation standards set by other state or federal agencies and lead to poor student outcomes. RTCC agreed, as does the Department, and so recommended the regulation be changed.

Subsection (b) is amended, as recommended by RTCC, to reduce the number of laboratory training hours from four to two because these experiments are simple and the obtained images are used only for verifying position of the body part over the radiation detector, not for general diagnostic purposes. Also, RTCC recommended quality assurance tests be included as such tests ensure the densitometric value obtained by use of the XBD unit is reliable and valid.

Subsection (c) is amended, as recommended by RTCC, to reallocate the number and types of procedures students must perform for proficiency. These procedure types are those most frequently performed in the industry and vertebral fracture assessment procedures are being increasingly performed. Thus, performing a wider range of procedure types increases the student's skill and prepares them for working in the industry.

Repeal **Article 5, On-The-Job Training for X-ray Technicians**, due to the deletion of section 30428.

Repeal **section 30428** as recommended by RTCC. In 1973, the Legislature authorized the Department to approve a licentiate to provide on-the-job training (OJT) (Statutes of 1973, chapter 954). Since that time, increases in workforce have reduced the utilization of OJT by licentiates such that the Department has not received any OJT requests in over eight years. Historically, OJT graduates also had very low credentialing pass rates.

Redesignate **Article 6, Notification** to Article 5 due to the repeal of Article 5 and section 30428.

Amend **section 30435** to both address the problems and realize the benefits as stated regarding this regulatory action, to reduce reporting requirements, and to make nonsubstantial changes for consistency with this proposal. The phrase “course of study or on-the-job training program shall, on forms furnished by the Department,” is deleted for consistency with proposed terminology, deletion of on-the-job training programs, and deletion of references to forms furnished by the Department.

Subsection (a) is amended for clarity. The Department continues to receive inquiries as to whether “facility” means a “school” or the facility where students perform X-ray procedures. The proposal replaces “facility” with “school” for clarity.

Subsection (b) is amended for clarity. Currently, this provision requires notification of any change in course offerings often resulting in voluminous submittals. This proposal clarifies that the notification should only occur if the change would result in failure to meet the applicable section. Thus, this reduces what must be submitted and when.

Subsection (c) is amended for clarity. Though existing schools provide notification of a change in the program director and faculty, current regulations fail to specify staff qualifications or that the school must have such staff. Proposed section 30418 clarifies this failure. Thus, this subsection clarifies that only changes in those staff require notification.

Subsection (d) is amended for clarity. Though existing schools provide notification of a change in affiliation agreements, current regulations fail to specify such agreements or their content. Proposed section 30415 clarifies this failure so that the existing provision makes sense. Also, the proposal limits when notification occurs reducing the frequency of notifications and the burden of reporting.

Existing subsections (e) and (f) are deleted as they are no longer necessary and remove a reporting burden on the community.

Proposed subsection (e) is necessary to initiate efforts to ensure the school meets applicable sections exempted under 30411(e).

Redesignate **Article 7, Disciplinary Action** to Article 6 for consistency with this proposal.

Amend **section 30436** to both address the problems and realize the benefits as stated regarding this regulatory action, to specify and clarify reasons for taking certain actions to suspend or revoke a school’s authorization, and to make nonsubstantial changes. Subsection (a) is amended to delete the reference, and regulation citation, to OJT programs because those programs are being deleted in this proposal. The reference to section 30420 is changed to section 30412 due to changes in this proposal.

Subsection (a)(2) is necessary to clarify that the performance criteria is determined using a student's first attempt at passing required examinations. The proposed term of "credentialing examination pass rate" in section 30400 provides the calculation for determining the rate and is based on JRCERT's standards as discussed regarding section 30400. Currently, this provision includes all examination attempts and, unfortunately, would penalize a school for a student's failure to take the exam as soon as possible after graduation but waited many years after graduation to take the exam. Such penalization is essentially eliminated by with this proposal and the proposed adoption of section 30407.

Subsections (a)(3) and (a)(4) are necessary to inform approved schools that the Department expects schools to be ethical and trustworthy in its dealings with the Department and with X-ray facilities.

Subsection (a)(5) is necessary because collected fees are used for approving and inspecting schools to ensure schools are able to provide adequate education and training in radiologic technology. Failure to support those tasks would result in a failure to ensure individuals can provide high quality X-ray images with minimal patient exposure to radiation.

Subsection (a)(6) is necessary to ensure that only those schools providing quality education and willing to make necessary corrections maintain the Department's approval as indicated by the school's approval. Schools that obtain the approval through fraud, misrepresentation or mistake place the public health at a great risk because there is no objective review to ensure the student receives quality education and be eligible to take required examinations. This further protects students from unscrupulous schools.

Subsection (a)(7) is necessary to ensure the school keeps the Department informed of the specified changes. Failing to perform that duty could allow the school to operate with unqualified personnel, inadequate course offerings, and affiliation agreements that place the student at risk of decreased educational opportunities.

Subsection (b) is necessary to define "deliberate misconduct" for purposes of subsection (a)(3). This definition is based on 17 CCR 30105 and modified so it is applicable to the RT Act.

Redesignate **Article 8, Additional School Requirements and Recordkeeping** to Article 7 for consistency with this proposal.

Amend **section 30437** to both address the problems and realize the benefits as stated regarding this regulatory action, and for clarity and consistency with this proposal. Subsections (a) and (b) are amended to cite the redesignated section where school approvals are issued. Subsections (a)(1) and (a)(2) are amended for clarity and

consistency with terminology changes and existing regulations and to make grammatical and punctuation corrections. Subsection (b) is further amended to clarify that the specific records must be available for Department inspection and is necessary to ensure operations are valid. Subsection (b)(3) is amended for consistency with terminology found in proposed section 30417.

Amend **Article 1** of Group 3, for clarity and consistency with this proposal.

Amend **section 30440** to both address the problems and realize the benefits as stated regarding this regulatory action, and to consolidate and clarify the eligibility and application process for obtaining a radiologic technology certificate. Proposed subsection (a)(1) is necessary to inform the applicant what documentation must be submitted to be eligible for the certificate. Subsection (a)(1)(A) is necessary to uniquely identify the individual, allow contact with the individual and identify where to mail any documents, and to comply with Family Code section 17520, which addresses child support enforcement. Subsection (a)(1)(B) is necessary to determine which certificate the applicant is applying for; namely, a certificate in diagnostic radiologic technology or therapeutic radiologic technology. Subsection (a)(1)(D), redesignated from section 30441(b), is necessary to cover costs. A change in fee amounts is not proposed.

Proposed subsection (a)(1)(C) is necessary to ensure the individual has completed the required education, training and experience from acceptable instruction providers. Paragraph (1)(C)1 is redesignated from section 30441(c). Paragraph (1)(C)2 is necessary to clarify H&S Code 107010 that allows the Department to accept in lieu of its own examination a certificate of another agency or organization that certifies radiologic technologists, provided the certificate was issued on the basis of qualifications and an examination that is reasonably equivalent to the standards established by the Department. ARRT's examinations have been accepted since 2000. This acceptance allows out-of-state individuals who are ARRT-certified (or an ARRT-registrant) to become certified in California without taking an additional examination. Under ARRT's terminology, a registrant is a person who has passed the applicable examination and every two years obtains 24 hours of continuing education.

Subsections (b) and (c), redesignated from subsections (a) and (b), respectively, are necessary to inform applicants they must pass a written examination unless they meet the cited exception. This implements and clarifies H&S Code 107010.

Subsection (d) is necessary to inform applicants of the Department's authority under the RT Act to deny certificates or permits.

RTCC, at its public meetings of November 14, 2000 and September 21, 2005, recommended limiting the number of times any applicant who is required to pass a written examination for any certificates issued under sections 30440 or 30455.1 or for any permit issued under sections 30444 or 30451 may take the examination. The

recommendation was not to include licentiate applicants under section 30466. This limitation was to follow ARRT's procedure for exam limitation. ARRT allows a candidate who has failed an examination to take a subsequent examination. Candidates are limited to three attempts within the three-year period commencing on the date ARRT determines the candidate was deemed qualified as based on the submitted application. If the candidate fails the third attempt or fails to pass the exam within the three year period is deemed no longer eligible and may regain eligibility only by repeating its professional education requirements, essentially requiring the individual to repeat all education and clinical competency requirements.

The Department considered adopting this recommendation (References 25 & 26, proposed section 30407) and presented proposed language at the RTCC's October 2011 and May 2012 public meetings. Further, in efforts to maintain consistency with ARRT's approval processes, a nationally accepted process, it was further proposed to address educational recency. That is, to deny applicants whose education was obtained more than three years prior to application submittal, or had passed the applicable ARRT examination more than five years prior to application submittal. (References 25 & 26, proposed sections 30440, 30444, 30451, 30455.1, & 30466.)

However, upon further review and research on these recommendations and proposals it was determined that no other State-issued authorization within healthcare occupations placed such limitations on applicants. Implementing such limitations could create adverse impacts on individuals by requiring them to reapply, pay additional school fees, repeat education and training requirements, or be on waiting lists for years. Thus, the Department believes that, while it is important to ensure education is updated to address new technologies, employers of certified and permitted individuals are more suited at determining the individual's ability to perform procedures. Therefore, the recommendation to create such limitations is rejected.

Repeal **section 30441** and recodify its content into section 30440. This is a nonsubstantial change.

Amend **section 30442** to both address the problems and realize the benefits as stated regarding this regulatory action, to address RTCC's recommendations to discontinue certain limited permit categories, and make nonsubstantial changes to the title of the section and the authority and reference note. See the discussion of section 30443 regarding RTCC recommendations.

Amend **section 30443** to both address the problems and realize the benefits as stated regarding this regulatory action, to clarify that the specified limited permit scopes are further restricted by section 30447, and to correctly identify authority and reference citations. RTCC recommended discontinuance of the gastrointestinal permit category and the dermatology permit category and to modify the genitourinary permit category by changing it to allow a person to perform a single view abdomen X-ray procedure (i.e.

abdomen category). Subsections are redesignated to maintain a coherent structure and are a nonsubstantial change.

The phrase “subject to the restrictions specified in section 30447” is added because the Department continually receives inquiries and issues notices of violations regarding restrictions of the limited permits. This proposal is necessary to clearly inform the industry of the restrictions in section 30447.

As recommended by RTCC, three limited permit categories are proposed to be discontinued as they are no longer needed. Those permit categories have not been issued in more than eight years, there are no approved schools teaching those categories, and the Department has received no evidence of interest. Regarding the abdomen category, the Department is not addressing this recommendation so as to perform additional research supporting the need for creation of a limited permit category of such narrow scope.

Amend **section 30444** to both address the problems and realize the benefits as stated regarding this regulatory action and to consolidate and clarify the eligibility and application process for obtaining a limited permit. Proposed subsection (a)(1), redesignated from section 30445(a)(1) through (a)(3), is necessary to inform the applicant what documentation must be submitted to be eligible for the permit. Subsection (a)(1)(A) is necessary to uniquely identify the individual, allow contact with the individual and identify where to mail any documents, and to comply with Family Code section 17520, which addresses child support enforcement. Subsection (a)(1)(B) is necessary to determine which permit category the applicant is applying for, as there are a number of limited permit categories (17 CCR 30442). Subsection (a)(1)(D), redesignated from section 30445(b), is necessary to cover costs. A change in fee amounts is not proposed.

Proposed subsection (a)(1)(C), redesignated from section 30445(c), is necessary to ensure the individual has completed the required education, training and experience from an acceptable instruction provider. Currently, pursuant to section 30445, there are three pathways an applicant can be qualified:

- Completion of training via a CDPH-approved limited permit X-ray technician school;
- Completion of OJT; or
- Submitting a resume showing education, training, and experience equivalent to the requirements for the applicable permit category.

This proposal deletes two of the pathways. OJT is deleted as recommended by RTCC as discussed in section 30428. The resume pathway is deleted because there are no national standards and very limited state standards as few states have a limited permit X-ray technician type program or any permitting requirements. Resume reviews require numerous staff hours to review and very often require additional material from the applicant.

Subsection (a)(2), redesignated from subsection (b), is necessary to inform applicants they must pass a written examination.

Subsection (d) is necessary to inform applicants of the Department's authority under the RT Act to deny certificates or permits.

Repeal **section 30445** and redesignate its content to section 30444.

Amend **Article 1** of Group 4.5 for clarity and consistency with this proposal.

Repeal **section 30445.1** because its provisions have expired and the section is no longer necessary.

Amend **section 30446** to correctly identify authority and reference citations.

Amend **section 30447** to both address the problems and realize the benefits as stated regarding this regulatory action, to remove obsolete verbiage, and for consistency with the term "digital radiography" proposed in section 30400. Subsection (a)(6) is amended to delete the phrases "scanned projection radiography" and "digital tomography" as they are synonymous with the defined term of "digital radiography;" "digital tomography" is merely a subset of digital radiography. "Digital fluorography" is a subset of fluoroscopy equipment that is listed as an exclusion in subsection (a)(1). Subsection (d) is amended to delete paragraph (2) because all individuals since 2008 who complete training through a CDPH-approved limited permit X-ray technician program have completed the requirements of section 30410. Thus, the paragraph is no longer necessary.

Amend **section 30450** to both address the problems and realize the benefits as stated regarding this regulatory action, to specify who is not required to obtain the fluoroscopy permit, and to make clarifying, nonsubstantial changes. The section is restructured for clarity. Proposed subsection (a) is necessary to identify the exception to the requirement and to make grammatical corrections. Subsection (b) is added to clarify that therapeutic radiologic technologists (RT) are not required to obtain the permit. Prior to 2000, therapeutic RT's were required to obtain the fluoroscopy permit. In 2000, a determination was made that these RT's use of fluoroscopy X-ray equipment was intended to be within the scope of practice for purposes of simulating radiation therapy treatment. Simulating treatment ensures the actual treatment is performed safely and effectively. Nationally, such training is included in school curricula so that students are prepared to use such equipment in the workplace. Thus, this proposal clarifies this determination but informs individuals that use of the fluoroscopy equipment does not extend to diagnostic purposes since they are not trained or certified in diagnostic radiologic technology.

Amend **section 30451** to both address the problems and realize the benefits as stated regarding this regulatory action, to address RTCC's recommendation, and to consolidate and clarify the eligibility and application process for obtaining a radiologic technology fluoroscopy permit. Proposed subsection (a)(1) is necessary to inform the applicant that they must already be a certified diagnostic radiologic technologist. Current requirements, sections 30451 and 30452, do not clearly state whether the applicant must be so certified. This proposed clarification is based on the following:

- Section 30450. This section states that a "radiologic technologist fluoroscopy permit" is "required of any technologist who" performs certain actions. Thus, it appears that the word "technologist" refers to the "radiologic technologist."
- Title of Group 4, Use of Fluoroscopy by Radiologic Technologists, indicates the intent that the regulations therein pertain to radiologic technologists.
- Original 1985 rulemaking documentation (Reference 19):
 - Initial statement of reasons describes the purpose of those regulations found in Group 4, Use of Fluoroscopy by Radiologic Technologists, to provide "for permits for those radiologic technologists who may be assigned by the supervising doctor the semi-independent use of fluoroscopy."
 - A study requested by the RTCC and conducted by Department staff in 1981 supporting the adoption of the fluoroscopy permit requirements states in its conclusion that "a large number of radiologic technologists operate or use all types of fluoroscopy equipment both under the direct supervision of an X-ray supervisor and operator and semi-independently." (Reference 20.)
- Section 30447(a)(1). This section identifies certain activities and equipment use that limited permit X-ray technicians may not do or use. Subsection (a)(1) excludes authorization to operate fluoroscopy equipment during exposure of a patient to X-rays.

Therefore, proposed subsection (a)(1) is clarifying the intent to require, and the historical practice, that the radiologic technologist fluoroscopy permit is issued only to qualified radiologic technologists.

Subsection (a)(2) specifies what documentation must be submitted to be eligible for the permit. Subsection (a)(2)(A) is necessary to uniquely identify the individual, allow contact with the individual and identify where to mail any documents, and to comply with Family Code section 17520, which addresses child support enforcement. Subsection (a)(2)(B) is necessary to determine that the applicant is a certified diagnostic radiologic technologist by accessing Department databases. Subsection (a)(2)(C), redesignated from section 30452(b), is necessary to cover costs. A change in fee amounts is not proposed.

Proposed subsection (a)(2)(D) is necessary to ensure the individual has completed the required education, training and experience from acceptable instruction providers. Paragraph (2)(D) is redesignated from section 30452(c)(1). Paragraph (2)(D)1 is

necessary to address RTCC's recommendation. (Reference 3.)

Proposed subsection (a)(2)(D)2, though not an RTCC recommendation, is necessary for consistency with paragraph (2)(D)1. In statements made by ARRT representatives at the RTCC's May 2012 meeting, ARRT's radiography examination content specifications assumes that its applicants have completed education and training equivalent to the proposed changes to section 30423. Also, as indicated in ARRT's radiography examination content specifications (Reference 6), radiography candidates must successfully complete coursework addressing the topics listed in its examination specifications and that those topics are presented in a format suitable for instructional planning in the ASRT Radiography Curriculum (2007). ASRT has updated its radiography curriculum to 2012 (Reference 16) and the Department is incorporating it by reference in section 30421. Also, JRCERT accreditation standard 3.2 (Reference 8, p. 36) requires educational programs to meet the latest ASRT professional curriculum. Thus, the Department proposes to allow individuals who are both certified in radiography by the ARRT and are ARRT registrants. This maintains consistency with RTCC's recommendation in that individuals who have passed ARRT's radiography examination have met the same proficiency as those who meet proposed subsection (a)(2)(D)2.

Subsection (a)(3), redesignated from existing subsection (b), is necessary to inform applicants they must pass a written examination.

Proposed subsection (b) is necessary to inform applicants of the Department's authority under the RT Act to deny certificates or permits.

Repeal **section 30452** and consolidate some of its components with section 30451. Subsections (a), (b), and (c)(1) are redesignated to section 30451. See that section for discussion. Subsection (c)(2) provides a "resume" pathway but it is proposed to be deleted because there are no national standards or consistent training requirements in nearly all states. The fluoroscopy permit requirements were adopted in 1985 and since that time, only Alaska and Iowa have adopted some form of a similar requirement. Further, resume reviews require numerous staff hours to review and very often require additional material from the applicant. Therefore, the resume pathway is proposed to be deleted.

Amend **Article 1** of Group 4.5 for consistency. This is a nonsubstantial change.

Amend **section 30455.1** to both address the problems and realize the benefits as stated regarding this regulatory action and to clarify what must be submitted for eligibility to obtain a mammographic radiologic technology certificate. The section is restructured for clarity and consistency with other proposed changes regarding eligibility and issuance of certificates and permits.

Proposed subsection (a)(1) is redesignated from subsection (a). The citation to section 30440(a) is deleted due to proposed section 30400 containing defined terms that provide applicable citations to regulations. Thus, only the terms' use is needed in lieu of the cited regulation. Subsection (a)(2) specifies what documentation must be submitted to be eligible for the certificate. Subsection (a)(2)(A) is necessary to uniquely identify the individual, allow contact with the individual and identify where to mail any documents, and to comply with Family Code section 17520, which addresses child support enforcement. Subsection (a)(2)(B) is necessary to determine that the applicant holds a diagnostic radiologic technology certificate by accessing Department databases. Subsection (a)(2)(C), redesignated from subsection (a)(2), is necessary to cover costs. A change in fee amounts is not proposed.

Proposed subsection (a)(2)(D) is necessary to ensure the individual has completed the required education, training and experience from acceptable instruction providers. Paragraph (2)(D)1 is redesignated from subsection (b)(2). Paragraphs (2)(D)2 and 3 are necessary to inform applicants of other eligibility criteria. Based on H&S Code 107010 and a review of ARRT's requirements, the Department determined that the ARRT's education, training and examination requirements are equivalent to the Department's standards. Thus, individuals meeting those requirements need not take a Department examination as proposed in subsection (b).

Proposed subsection (c) is necessary to inform applicants of the Department's authority under the RT Act to deny certificates or permits.

Amend **section 30460** to both address the problems and realize the benefits as stated regarding this regulatory action and to clarify the scope of the radiology supervisor and operator certificate. The title of the section is amended to more clearly indicate the section's content. The provisions of the section are given subsection designators to maintain a coherent structure. Subsection (b) is necessary to clearly state what this certificate authorizes. CDPH staff continue to receive inquiries as to what a holder of this certificate may do. This certificate is the broadest authorization for use and supervision of X-ray and addresses H&S Code 107111. That provision provides issuance of a certificate to supervise the operation of X-ray machines and to operate X-ray machines without restrictions if the licentiate meets the specified criteria. As discussed regarding section 30462, this certificate is issued only to licentiate-specialists who provide radiology services, that is, who use X-rays in their practice as the primary tool for the detection or diagnosis or treatment of human illness or injuries.

The phrase "within the limitation of the holder's California healing arts license" is necessary to inform the holder that this certificate only allows the holder to use X-ray within the scope of their professional license. The Department, through issuance of this certificate, has no legal standing to authorize a person to practice a healing art for which a person is not so licensed.

Subsection (b)(1) is necessary to inform the certificate holder that the certificate authorizes use of the X-ray equipment provided the X-ray equipment is properly registered. Under the regulations of the Radiation Control Law (RCL) (H&S Code 114960 et seq.), person's, as defined in H&S Code 114985(c), must register if they posses X-ray equipment (17 CCR 30108 & 30110). This proposal is necessary to clarify that the certificate holder may only use properly registered X-ray machines to ensure they are compliant with the RCL.

Subsection (b)(2) is necessary to identify those individuals who may be supervised by the certificate holder. These provisions are based on H&S Code 106975(b) and 106980(a). Section 106975(b) requires that for an individual to be exempt from the RT Act certification requirements they be under supervision of an authorized individual. Section 106980(a) requires the specified individuals be under supervision of authorized individuals when using X-ray equipment.

Amend **section 30461** to both address the problems and realize the benefits as stated regarding this regulatory action and to clarify both the permit categories for licentiates of the healing arts and the scope of each permit. The title of the section is amended to more clearly indicate the section's content. Current subsections (a), (b), and (c) are redesignated to subsections (a)(1), (a)(2), and (a)(3), respectively, to maintain a coherent structure due to proposed additions.

Proposed subsection (a)(4) is added to identify the new permit issued pursuant to section 30467 and is further discussed regarding subsection (e) and sections 30466(a)(5) and 30467.

Proposed subsections (b) through (e) are necessary to clearly state what the particular permit authorizes. CDPH staff continue to receive inquiries as to what a holder of a permit may do. These subsections contain the phrase "within the limitation of the holder's California healing arts license." This is necessary to inform the holder that this permit only allows the holder to use X-ray within the scope of their professional license. A licentiate of the healing arts is defined as a licensed medical, osteopathic, chiropractic, or podiatric doctor. (H&S Code 114850(h)(1).) The Department, through issuance of these permits, has no legal standing to expand or limit the authorization to practice those professions. For example, a radiography supervisor and operator permit held by a podiatrist only means that the podiatrist can use radiography X-ray equipment in the practice of podiatry.

Proposed subsections (b)(1), (c)(1), (d)(1), and (e)(1) all inform the particular permit holder that the particular permit authorizes use of the specified X-ray equipment provided the X-ray equipment is properly registered. Under the regulations of the Radiation Control Law (RCL) (H&S Code 114960 et seq.), person's, as defined in H&S Code 114985(c), must register if they posses X-ray equipment (17 CCR 30108 &

30110). This proposal is necessary to clarify that the permit holder may only use properly registered X-ray machines to ensure they are compliant with the RCL.

Proposed subsections (b)(2), (c)(2), (d)(2), and (e)(2) are necessary to identify those individuals who may be supervised by the permit holder. These provisions are based on H&S Code 106975(b) and 106980(a). Section 106975(b) requires that for an individual to be exempt from the RT Act certification requirements they be under supervision of an authorized individual. Section 106980(a) requires the specified individuals be under supervision of authorized individuals when using X-ray equipment.

Subsection (e) is further discussed regarding sections 30466(a)(5) and 30467.

Amend **section 30462** to both address the problems and realize the benefits as stated regarding this regulatory action and to clarify that a radiology supervisor and operator certificate is issued only to licentiates of the healing arts who practice as a radiologist or radiation oncologist. The title of the section is amended to more clearly indicate the section's content. In practice, this certificate has only been issued to licentiates who attest that they practice as a radiologist. However, in reviewing this section, sections 30466(d), 30467, and 30468 it is unclear if this practice is supported. To determine the original intent of both the RTCC and the Department, H&S Code section 107111 and the original rulemaking file were reviewed and, for the provision found in section 30460, the file states:

Section [30460] gives the certificate category for licentiates and is necessary to distinguish between those licentiate-specialists who provide radiology services, that is, who use X-rays in their practice as the primary tool for the detection or diagnosis or treatment of human illness or injuries, and licentiates who use X-rays as an adjunct to their practice.

Based on H&S Code 107111, which requires issuance of a certificate without restriction to a licentiate who is certified by an examining board in radiology recognized by the Department and the intent of the original rulemaking adoption, this proposal limits to whom the certificate is issued. Therefore, the certificate will be issued only to a licentiate who practices as a radiologist or a radiation oncologist as originally intended.

Additionally, the current provision mandates that any licentiate who practices as a radiologist obtain the permit. Such language clearly requires a radiologist who never administers or uses X-ray or supervises the use of X-ray on humans to obtain the certificate. Thus, it appears that the regulation is inconsistent with the RT Act. The Department believes that the RT Act certification requirement is invoked only when a licentiate performs the following activities:

- Administers or uses diagnostic, mammographic, or therapeutic X-ray on human beings. This is specified in H&S Code 107110. Subsection (a) addresses this

activity since the patient is exposed to X-rays when a person actuates or energizes the X-ray equipment (i.e. pushes the exposure button).

- Directly controls radiation exposure to the patient during X-ray procedures: subsection (b). During X-ray procedures such as those procedures using fluoroscopy X-ray equipment, the procedure may be an invasive procedure requiring establishing sterile surgical fields for patient protection including licentiate dressed in sterile surgical clothing and gloves. An additional person (e.g. a CRT holding a fluoroscopy permit) may be required to move the X-ray equipment as directed by the licentiate and actuated (by the CRT) when the licentiate requests. Thus, the licentiate may never actually push the button but directly controls when X-ray should be administered to the patient. Appropriate administration of X-ray can be determined only by the licentiate as this falls within Business and Professions Code section 2052 regarding the practice of medicine.
- Supervises CRTs, XTs, or students: subsections (c) and (d). This is based on the following H&S Code sections:
 - 106975(b): students are exempt from certification/permitting requirements only if a student of an approved school and under supervision of a CRT or a certified supervisor or operator.
 - 106980(a): certification under H&S Code 114870(b) or (c) (CRT or XT, respectively) does not authorize use of X-ray equipment except under supervision of a certified supervisor or operator.
 - 107111: Certificate authorizes supervision of the operation of X-ray machines and to operate X-ray machines without restrictions.

Amend **section 30463** to both address the problems and realize the benefits as stated regarding this regulatory action, and to clarify that a fluoroscopy permit is required when the licentiate supervises students in an approved school. The title of the section is amended to more clearly indicate the section's content. Subsection (c) is amended for clarity by making nonsubstantial grammatical and capitalization corrections. Proposed subsection (d) is necessary to clarify H&S Code 106975(b) relating to individuals (i.e. students) who may, without being certified or permitted (i.e. exempt), take X-rays on human beings. For individuals to be exempt, the individual must be under supervision of a properly certified/permitted individual while a student in an approved school.

Amend **section 30464** to both address the problems and realize the benefits as stated regarding this regulatory action, and to clarify that a radiography permit is required when the licentiate supervises students in an approved school. The title of the section is amended to more clearly indicate the section's content. Subsections (b) and (c) are amended for clarity and brevity to use the proposed term identifying such persons. Proposed subsection (d) is necessary to clarify H&S Code 106975(b) relating to individuals (i.e. students) who may, without being certified or permitted (i.e. exempt), take X-rays on human beings. For individuals to be exempt, the individual must be under supervision of a properly certified/permitted individual while a student in an approved school.

Amend **section 30465** to both address the problems and realize the benefits as stated regarding this regulatory action, to clarify when the permit is required, and to make nonsubstantial changes to the title of the section and the authority and reference note. Subsections (a) through (c) are added to identify the criteria invoking the permit requirement and are based on sections 30462, 30463, and 30464. The criteria provide additional clarity for the industry regarding supervision of individuals during performance of X-ray procedures.

Amend **section 30466** to both address the problems and realize the benefits as stated regarding this regulatory action and to clarify what must be submitted for eligibility to obtain any of the specified authorizations. The requirement to have on file an application described in section 30468 is deleted because the content of section 30468 is integrated into proposed subsection (a). Subsections (a)(1)(A) through (a)(1)(D) further clarifies former section 30468(a) by specifying what information must be submitted in an application. Subsection (a)(1)(A) is necessary to identify the individual, allow contact with the individual, identify where to mail any documents, and to comply with Family Code section 17520, which addresses child support enforcement. Subsection (a)(1)(B) is necessary to know which authorization the applicant is applying for. Subsection (a)(1)(C) (former section 30468(c)) is necessary to ensure the individual is a properly licensed healing arts licentiate. Subsection (a)(1)(D) (former section 30468(b)) is necessary to indicate that an application fee is required and where that fee is specified. The exception for submittal of an application fee for permits submitted pursuant to subsection (a)(5) is necessary because a fee amount has not been determined. Such a fee will be determined at a future rulemaking effort.

Subsections (a) through (c) are redesignated to subsections (a)(2) through (a)(6), respectively, to maintain a coherent structure and to make nonsubstantial grammatical changes due to integration of former section 30468 for clarity.

Subsections (a)(2) and (a)(3) exempt chiropractors from the Department's examination if they have met the examination requirements of the American Chiropractic Board of Radiology (ACBR) (www.acbr.org) as recommended by RTCC. ACBR is a private organization that certifies chiropractors in the specialty of chiropractic radiology and only recognizes individuals who have passed its certification examination. This examination consists of two parts. Part one addresses use of X-ray in bone and joint imaging, imaging of the thorax, neuroimaging, imaging of the abdomen, and radiation health and physics of imaging. Part two consists of an oral interview covering four complete imaging studies in specific imaging areas including patient history, clinical findings, interpretation, reporting, and any follow-up needs. CDPH agrees with RTCC that certification from this organization is appropriate for issuing the particular permit to a Diplomate of the ACBR without the need to take additional examinations.

Subsection (a)(4) (redesignated from subsection (c)) is amended for clarity and is nonsubstantial.

Subsection (a)(5) is necessary to implement HSC 114870(f) and to specify what information must be submitted for obtaining the X-ray bone densitometry supervisor and operator permit. In 2002, the Governor signed into law Assembly Bill (AB) 2753 (Statutes of 2002, chapter 657) that mandated the Department to provide for certification of licensed physician and surgeons limited to the use and supervision of X-ray bone densitometers (XBD) that meet very specific criteria. This new certification, effective January 1, 2003, can be obtained only by licensed physician and surgeons who have completed specific instruction; an examination to obtain the authorization was not required. Since 2003, issuance of this limited authorization occurs on a case-by-case basis.

Further, this new authorization restricts use/supervision of use of an XBD that:

- Does not require user intervention for calibration;
- Does not provide an image for diagnosis; and
- Is used only to estimate bone density of the heel, wrist, or finger of the patient.

These types of XBD's are often called "peripheral" units because they are very small and are generally intended for screening purposes. Thus, AB 2753 provides a simple pathway for a physician who wants to use/supervise these peripheral XBD units. The physician need only complete minimal training in specific topics from specific providers and would not need to pass a written examination.

There is a major distinction between this new permit and those permits currently issued under this section. This new permit is machine-specific; that is, use is limited to the particular XBD the physician was trained to use. Currently issued permits allow the physician to use any X-ray machine within the scope of the particular permit. Being that this new permit is machine-specific, AB 2753 provides administrative flexibility by allowing the permitted physician, through the review and issuance of the initial permit, to use that permit for any other XBD that meets specified criteria the physician has been trained to use. This removes the need to apply for and obtain a permit for every particular XBD unit. However, to use the initial permit in this manner, the physician must, upon Department request, provide evidence of training for the use of any XBD unit used by the physician. (H&S Code 114870(f)(1) 2nd and 3rd sentences.)

Subsections (a)(5)(A) through (C) are necessary to verify the applicant has met H&S Code 114870(f)(1) and (f)(2). Subsection (a)(5)(B) also specifies other acceptable training providers as indicated in H&S Code 114870(f)(1); namely, a radiologic technology school. This proposal limits the type of school to those that are applicable to X-ray bone densitometry training. These approved schools have appropriate training material and competent staff for ensuring the physician receives quality training for safely using the XBD unit.

Subsection (d), redesignated to subsection (a)(6) to maintain a coherent structure, is amended for clarity, to address an RTCC recommendation, and to identify other acceptable examinations for obtaining the radiology supervisor and operator certificate. The requirement to attest that the applicant practices as a radiologist or radiation oncologist is necessary to maintain a level of confidence that the document issuance is proper. It is also necessary to inform the applicant that perjury is not acceptable and unprofessional.

Subsections (a)(6)(A) through (C) are necessary to identify acceptable certification bodies as found in section 30467. Subsections (a)(6)(B) and (a)(6)(C) are necessary to provide an alternative to those individuals who are in the process of obtaining certification from currently accepted bodies. These examinations are rigorous and address the radiation issues the Department’s own examinations focus on. Requiring a person who has passed one of those examinations to take an additional examination is unreasonable and burdensome. At the RTCC’s May 2012 meeting, some members asked if the validity of a radiology certificate is lost when the holder had obtained the certificate by passage of the examinations specified in subsections (a)(6)(B) or (a)(6)(C) but never obtains certification from the cited organizations. The Department-issued radiology supervisor and operator certificate is not tied to or contingent on certification by the American Board of Radiology or the American Board of Osteopathic Radiology both of which are private organizations. The cited examinations serve as acceptable examinations for issuance of the certificate in lieu of updating the Department’s current examinations or developing new examinations.

Proposed subsection (c) is necessary to inform applicants of the Department’s authority under the RT Act to deny certificates or permits.

Amend **section 30467** to both address the problems and realize the benefits as stated regarding this regulatory action, to recodify the current provision into section 30466, and to address H&S Code 114870(f) as to when a licensed physician must possess an X-ray bone densitometry (XBD) supervisor and operator permit. See also the discussion of section 30466(a)(5). Though this proposal essentially duplicates H&S Code 114870(f)(1), it is necessary for more efficiently and effectively implementing and administering this authorization and because the statute’s mandate is on the Department, not the applicant. To maintain consistency and clarity within current and proposed regulation and H&S Code 114870(f), terminology is modified but intended to accomplish the same statutory outcome. These differences are bolded and italicized as follows:

H&S Code 114870(f)	Proposal	Discussion
(f)(1) “Provide for <i>certification</i> to operate, and supervise	Requires possession of an “X-ray bone	CDPH issues a “permit” instead of a “certificate.” Current regulation structures licentiate authorizations as follows:

H&S Code 114870(f)	Proposal	Discussion
the operation of, a[n] [X-ray] bone densitometer..."	densitometry supervisor and operator permit. "	<ul style="list-style-type: none"> • A certificate (17 CCR 30460) is issued to a radiologist and authorizes use and supervision of use of X-ray without restriction. • A permit (17 CCR 30461) is issued to non-radiologist licentiates and is restricted to the particular category specified on the permit. <p>Therefore, this proposal maintains consistency by calling this authorization a "permit" instead of a "certificate" because H&S Code 114870(f)(1) restricts the authorized activity to the use/supervision of use of a particular type of X-ray bone densitometer. (H&S Code 114870(f)(1)(A)-(C)).</p>
(f)(1) "Provide for certification.... to operate, and supervise the operation of, a[n] [X-ray], a bone densitometer... "	Requires possession of an "X-ray bone densitometry supervisor and operator permit.	To maintain grammatical consistency, the proposed title of the issued permit uses "densitometry" instead of "densitometer" as found in H&S Code 114870(f). A densitometer is the instrument used to measure the density of the bone. Densitometry is the act of measuring the bone's density. Therefore, the permit's title is speaking to the act while the permit authorizes the use of the instrument.

Subsection (a) is necessary to clarify the requirement placed on individuals who wish to use or supervise the use of an XBD. It is based on, and nearly identical to, H&S Code 114870(f)(1) to ensure consistency. An exception is provided as discussed regarding subsection (c).

Subsection (b) is necessary to inform the holder that they must, upon request, provide evidence of training for each particular XBD unit they use. This is based on H&S Code 114870(f)(1) (2nd and 3rd sentences). See also the discussion of section 30466(a)(5).

Subsection (c) is necessary to inform individuals of the exception specified in H&S Code 114870(f)(3)(D). The specified exception is necessary to clarify that any licensed physician who possesses the specified authorizations is not required to obtain this new permit. A licensed physician who only possesses a fluoroscopy permit (17 CCR 30463)

is required to obtain this new permit if they meet the criteria. This is because a fluoroscopy permit only authorizes use of fluoroscopy equipment and does not authorize the use of an XBD unit.

Amend **section 30468** to both address the problems and realize the benefits as stated regarding this regulatory action, to recodify the current provision into section 30466, and to specify that Department-issued authorizations issued to licentiates of the healing arts are valid only if the licentiates' healing arts license is valid. This is necessary for the reasons stated regarding section 30403.5(a).

Redesignate **Group 7 of Subchapter 4.5** to "Subchapter 4.6." This nonsubstantial change structurally places sections 30470 – 30499 into its own subchapter rather than within the subchapter pertaining to radiologic technology. The content in Group 7 is not related to the content in Subchapter 4.6.

Redesignate **Subchapter 4.6** to new "Subchapter 4.7." This nonsubstantial change structurally places sections 30500 – 30543 into a new Subchapter.

Attachments

1. Radiologic Technology Certification Committee (RTCC) recommended changes to section 30421.
2. RTCC recommended changes to section 30422.
3. RTCC recommended changes regarding X-ray Bone Densitometry XT schools.
4. RTCC recommended changes regarding Limited Permit XT Schools teaching categories identified in section 30424.

References

1. RTCC meeting minutes of November 14, 2000.
2. RTCC meeting minutes of September 21, 2005.
3. RTCC meeting minutes of March 13, 2009. Available at: <http://www.cdph.ca.gov/services/boards/Documents/RHB-RTCC-Minutes-2009-03-13.pdf>.
4. RTCC meeting minutes of September 23, 2009. Available at: <http://www.cdph.ca.gov/services/boards/Documents/RTCC-Minutes-2009-09-23.pdf>.
5. RTCC meeting minutes of March 17, 2010. Available at: <http://www.cdph.ca.gov/services/boards/Documents/RTCC-minutes-2010-03-17.pdf>
6. American Registry of Radiologic Technologists (ARRT), "Radiography Competency Requirements," effective January 2012. Available at: <https://www.arrt.org/Certification/Radiography> and click on the above titled document.
7. ARRT, "Radiation Therapy Didactic and Clinical Competency Requirements," effective January 2011. Available at: <https://www.arrt.org/Certification/Radiation-Therapy> and click on the above titled document.
8. Joint Review Committee on the Education in Radiologic Technology (JRCERT), "Standards for an Accredited Educational Program in Radiography," April 2010, available at http://www.jrcert.org/pdfs/accreditation_process/standards/2011_Radiography%20Standards.pdf
9. JRCERT, "Standards for an Accredited Educational Program in Radiation Therapy," April 2010, available at

http://www.jrcert.org/pdfs/accreditation_process/standards/2011_Radiation%20Therapy%20Standards.pdf

10. JRCERT, "Standards for an Accredited Educational Program in Radiologic Sciences," January 2001, available at http://www.jrcert.org/pdfs/accreditation_process/standards/standards_%20for_an_accredited_educational_program_in_radiologic_sciences.pdf.
11. Letter to "Approved California Radiologic Technologist (RT) Schools" regarding "Use of Federal Facilities for Clinical Training Sites." August 11, 2007 update to June 8, 2007 (Reference 12). Available at: <http://www.cdph.ca.gov/certlic/radquip/Documents/RHB-HT-SchoolUseFederalFacilities.pdf>.
12. Letter dated June 8, 2007 to All Radiologic Technology Schools: "Important Notice Regarding Accepting the U.S. Department of Veterans' Affairs Facilities for Clinical Training."
13. "Fluoroscopy Educational Framework for the Physician Assistant" created by American Academy of Physician Assistants and the American Society of Radiologic Technologists (ASRT), published December 2009. Available at: <https://www.asrt.org> by searching for the above title document.
14. "Content Specifications for the Fluoroscopy Examination," ARRT, published November 2010. Available at: <https://www.arrt.org> by searching on the above titled document.
15. American Chiropractic Board of Radiology, Candidate Guide, Copyright 2003, effective April 26, 2010. Available at: <http://www.acbr.org/CandidateGuide.html>.
16. ASRT, Radiography Curriculum, 2012. Available at: <https://www.asrt.org> by searching on the above titled document.
17. ASRT, Radiation Therapy Professional Curriculum, 2009. Available at: <https://www.asrt.org> by searching on the above titled document.
18. American College of Radiology (ACR), "ACR-AAPM-SIIM Practice Guideline for Digital Radiography," 2007 Amended in 2009. Available at: <http://www.acr.org> by searching on the above titled document.
19. Department of Health Services. Rulemaking package R-7-82; includes Public Notice dated 11-30-83 and Statement of Reasons.
20. Department of Health Services. "The Use of Fluoroscopy Equipment in California Hospitals," dated October 1981.

21. ASRT "Limited X-ray Machine Operator Curriculum", 2009, available at: <https://www.asrt.org> by searching on the above titled document.
22. JRCERT Form 104R, revised 3-2011, available at: http://www.jrcert.org/acc_forms_radiography.html
23. JRCERT Form 104T, revised 3-2011, available at: http://www.jrcert.org/acc_forms%20-radiation_therapy.html
24. JRCERT Policy 11-400, revised 10-2011, available at: <http://www.jrcert.org/policies.html>.
25. RTCC Draft Regulations, October 2011.
26. RTCC Draft Regulations, Revised May 2012, available at <http://www.cdph.ca.gov/services/boards/Pages/rtcc.aspx>.
27. CDPH, "Syllabus on Fluoroscopy Radiation Protection," 6th Revision.
28. RTCC recommended adoption of proposed section 30421.5.

ALTERNATIVES CONSIDERED

Alternatives considered in this proposal are discussed or addressed in the detailed discussion of each regulation.

STATEMENTS OF DETERMINATIONS and ECONOMIC IMPACT ASSESSMENT

CDPH has determined that the proposed regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states.

CDPH has determined that the regulation would not impose a mandate on local agencies or school districts, nor are there any costs for which reimbursement is required by part 7 (commencing with Section 17500) of division 4 of the Government Code.

CDPH has determined that the regulations affect the following as described:

1. **The creation or elimination of jobs within the State of California.** This proposal may create jobs in the following areas:
 - Continuing education (CE) providers: This proposal would require certified and permit individuals to obtain certain types of CE credits if the individual possess certain authorizations. See section 30403 for specific discussions.
 - X-ray Schools: This proposal would require schools to have certain personnel meeting specific criteria. See section 30418 for specific discussions.
2. **The creation of new businesses or the elimination of existing businesses within the State of California.** This proposal may create new businesses such as CE providers to meet demand for CE credit specific to fluoroscopy and digital radiography.
3. **The expansion of businesses currently doing business within the State of California.** Businesses may expand somewhat to meet demand for CE credit specific to fluoroscopy and digital radiography.
4. **The benefits of the regulation to the health and welfare of California residents, and increases worker safety.** This proposal significantly increases the benefits to the health and welfare of California residents and worker safety because it ensures users of X-ray equipment have met specific training, education and experience requirements. Competency of such users ensures operators can safely and competently keep a patient's radiation exposure to a minimum and protect themselves, and other workers, from receiving unnecessary radiation exposure. This proposal would not significantly affect the state's environment because the radiation energy emitted from the use of X-ray

equipment dissipates to normal atomic structures without environmental contamination.

CDPH has determined that there would be an effect on small business subject to these regulations because small businesses would be required to comply with the regulations.

CDPH has determined that the regulations will have no impact on housing costs.

CDPH must determine that no reasonable alternative considered by CDPH or that has otherwise been identified and brought to the attention of CDPH would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed regulatory action, or would be more cost-effective to affected private persons and equally effective in addressing RTCC's recommendations.