

**State of California
Department of Public Health**

RADIOLOGIC HEALTH BRANCH

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Related Document: X-ray Inspection Manual

Policy Title: FLUOROSCOPY PERMIT REQUIREMENTS

1.0 PURPOSE:

The purpose of this document is to assist the staff of the Radiologic Health Branch in evaluating compliance with the requirements found in the fluoroscopy statutes and regulations. This document discusses the scope of practice for persons who hold a State of California Radiologic Technologist Fluoroscopy Permit and licentiates of the healing arts who hold a Radiology Supervisor and Operator Certificate or a Fluoroscopy Supervisor and Operator Permit. It is important to note that while this policy statement is not a regulation, and compliance with it is not required, compliance with the applicable statutes and regulations cited in this document is mandatory.

2.0 AUTHORITY AND REFERENCE

The Radiologic Technology Act (Act) (Health & Safety Code, §§ 106965 through 107111 and 114840 through 114896) requires anyone who administers or uses diagnostic or therapeutic X-ray on human beings in this state to be certified or granted a permit. It further requires licentiates of the healing arts who administer or use diagnostic, mammographic, or therapeutic X-ray on human beings in this state to be certified, and to act within the scope of that certification (Health & Safety Code, § 107110). The Act is implemented; made specific and interpreted by the California Code of Regulations (CCR), title 17, section 30400 et. seq.

The regulations (CCR, title 17, § 30400) define fluoroscopy as “a radiological examination utilizing fluorescence for the observation of the transient image.” The regulations (CCR, title 17, § 30450) further provide: “A radiologic technologist fluoroscopy permit issued by the Department shall be required of any technologist who exposes a patient to X-rays in a fluoroscopy mode, or who does one or more of the following during fluoroscopy of a patient:

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- (a) Positions the patient.
- (b) Positions the fluoroscopy equipment.
- (c) Selects exposure factors.”

Fluoroscopy, defined as a “radiological examination”, occurs only after the initial exposure has been made. Given this context, “fluoroscopy” is a radiological examination that includes tasks and activities identified in section 30450 subsections (a), (b) and (c), and in section 30463 subsections (b) and (c) that occur for the duration of the examination. The underlying rationale is that if a patient has been positioned for a fluoroscopic examination and the technical factors set, and the examination is aborted prior to a fluoroscopic exposure having been made, no fluoroscopic examination occurred. The Department cannot cite based upon intent.

Also, for licentiates of the healing arts, the regulations (CCR, title 17, § 30463) state: “A fluoroscopy supervisor and operator permit issued by the Department shall be required of any licentiate of the healing arts who does one or more of the following:

- (a) Actuates or energizes fluoroscopy equipment.
- (b) Directly controls radiation exposure to the patient during fluoroscopy procedures.
- (c) Supervises one or more persons who hold radiologic technologist fluoroscopy permits pursuant to Section 30451.”

In addition, the Act specifies that a Certified Radiologic Technologist (CRT) may take X-rays of human beings only when acting within the scope of a certificate or permit granted to that radiologic technologist by the Department and is acting under the supervision of a licentiate of the healing arts. (Health & Safety Code, §106965(a)) Furthermore, the Act prohibits the technologist from using diagnostic, mammographic, or therapeutic X-ray equipment except under the supervision of a certified supervisor or operator. (Health & Safety Code, § 106980(a)) Supervision means “responsibility for, and control of, quality, radiation safety, and technical aspects of all X-ray examinations and procedures.” (Health & Safety Code, § 114850(g))

Finally, section 107110 of the Health and Safety Code and sections 30462 and 30463 of title 17, California code of Regulations specify that only licentiates of the healing arts possessing a Radiology Supervisor and Operator Certificate or a Fluoroscopy Supervisor and Operator Permit may supervise a CRT who possesses a Radiologic Technologist Fluoroscopy Permit.

3.0 PROCEDURES

Thus, only CRTs who possess the Radiologic Technologist Fluoroscopy Permit and who are acting under the supervision of a licentiate of the healing arts who possesses a Radiology Supervisor and Operator Certificate or a Fluoroscopy Supervisor and

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Operator Permit may expose patients to X-ray in the fluoroscopy mode, or do one or more of the following during fluoroscopy of a patient:

- (a) Position the patient.
- (b) Positions the fluoroscopy equipment
- (c) Selects exposure factors

4.0 PRACTICAL EXAMPLES

The following examples, given in a question and answer format, provide typical situations that arise in routine practice. The examples do not address every possible situation but provide guidance for complying with the Radiologic Technology Act and the regulations promulgated there under.

Example 1

A CRT with the fluoroscopic permit (CRT(F)), operates the mobile fluoroscope in surgery. The CRT(F) is working with a surgeon. The surgeon does not operate the fluoroscopic equipment.

Question: Must the surgeon have the Fluoroscopy Supervisor & Operator (S&O) permit?

Answer: Yes. When the CRT(F) is performing fluoroscopy, whether in surgery or elsewhere, and the accompanying licentiate is requesting the CRT(F) to expose the patient (by pressing the X-ray "on" switch), the licentiate must possess the fluoroscopy S&O permit. California Code of Regulations, title 17, section 30463(b) requires a licentiate to possess a fluoroscopy permit if the licentiate directly controls radiation to the patient during fluoroscopic procedures. This is because the licentiate, or the surgeon in this example, is making the determination when the administration of radiation is appropriate to the patient. The surgeon is the responsible licentiate for the fluoroscopic procedure and the care of that patient.

Example 2

A licentiate with the fluoroscopy S&O permit (S&O-F) is actuating the X-ray "on" switch and the accompanying CRT is assisting the S&O-F by positioning the patient, adjusting exposure factors or positioning the fluoroscopic equipment after the initial exposure has been made. This is done when the X-ray is both on and off.

Question: Must the CRT have the fluoroscopic permit?

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Answer: Yes. The CRT is required to have a fluoroscopy permit because these tasks are performed following the initiation of the radiologic procedure. Fluoroscopy, defined as a “radiological examination” in California Code of Regulations, title 17, section 30400, includes tasks and activities identified in section 30450 subsections (a), (b) and (c), and in section 3463 subsections (b) and (c), while the procedure is in progress.

Example 3

The CRT sets up the fluoroscopy room for the radiologist who performs the fluoroscopic procedures. The radiologist has the Radiology Supervisor & Operator Certificate. The set-up work by the technologist includes the following: 1) placing the patient on the table, 2) pulling the fluoroscopy Image Intensifier (I.I.) over the patient and locking it into position, and 3) adjusting the control panel from radiographic to fluoroscopic mode. The radiologist reviews the set-up and makes adjustments at his/her discretion prior to initiating the fluoroscopic exposures. The technologist administers the barium sulfate contrast solution and changes spot films during the examination as the radiologist adjusts the patient’s position, repositions the I.I. as needed, and makes adjustments to the fluoroscopic field and exposure factors. After the fluoroscopic examination is over, the technologist performs the “overhead” radiographic films.

Question: Must the CRT have the fluoroscopic permit?

Answer: No. The CRT is not required to possess the fluoroscopic permit to take overhead films or change spot films. The radiologist’s acceptance or modification of the position or technical factors confirms their acceptability prior to initiating the exposure. Subsequent positioning and technical adjustment was performed by the radiologist for the duration of the examination.

Example 4

Question: What tasks can health care workers, such as nurses and medical assistants, perform to assist the licentiate who possesses a fluoroscopy certificate or permit? The workers do not possess the Certified Radiologic Technologist Fluoroscopy Permit. Some examples: placing the patient on the table, moving a mobile fluoroscope from storage to the examination room and moving the equipment over the patient, plugging in and turning on the power for the fluoroscopy unit. Prior to the initiation of the fluoroscopic exposure, the licentiate is responsible for reviewing the set-up and making any necessary adjustments to the patient or equipment and confirming console settings. The licentiate is responsible for these actions whether or not they actually perform them.

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Answer: In these three situations, the position of the patient, the equipment, and the technical factors have been finalized and accepted by the licentiate prior to the initiation of the fluoroscopic examination.

Once the fluoroscopic examination has begun with the initiating exposure, the nurse or medical assistant may not perform tasks associated with the exposure of the patient to radiation for the duration of the examination.

Example 5

The CRT with the fluoroscopic permit performs fluoroscopy under standing orders from a Radiology Supervisor and Operator (a radiologist) using the fluoroscopic equipment. There is no radiologist in the room.

Question: Can the CRT(F) perform fluoroscopy?

Answer: Yes.

Example 6

A CRT with the fluoroscopic permit, working under the general supervision of a Radiology Supervisor and Operator (a radiologist), fluoroscopes and videotapes a patient swallowing contrast media. The procedure is performed using a mobile unit. The radiologist views the videotape and makes the interpretation.

Question: Can the technologist operate the fluoroscope and videotape the fluoroscopic image?

Answer: Yes. The technologist must have the CRT(F). No accompanying licentiate directly controls the technologist.

In examples 5 and 6, the technologist is working under the supervision of a radiologist (Radiology Supervisor and Operator) and under the policy and procedures of the radiology department. The CRT(F) abides by the radiology department policy and procedure for determining appropriateness and administration of radiation. The radiologist with the S&O Radiology Certificate has the responsibility for the appropriateness of administration of X-ray by the CRT(F). The CRT is an employee of the radiology department. The policy and procedure provides the criteria that the CRT(F) will use for determining appropriateness. The criteria must ensure that the technologist does not interpret or make a diagnosis based on the examination and that the technologist is acting under appropriate supervision.

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Example 7

Is a CRT(T) required to possess a fluoroscopic permit to operate a therapy simulator?

Answer: No. The therapy technologist may operate conventional and simulation equipment that incorporates fluoroscopic and CT capabilities, provided the procedures are for treatment planning purposes. The therapy technologist may not operate simulation equipment for diagnostic purposes.

Example 8

Assume a Cardiac Catherization Lab setting where the Cardiologist possesses a fluoroscopy Supervisor & Operator Certificate. A Cardio-Vascular Technologist assists the Cardiologist by positioning the patient and moving the tube at the direction of the Cardiologist, but only when the tube is not generating X-ray. Is the Cardio-Vascular Technologist performing fluoroscopy?

Answer: Yes. The Cardio-Vascular Technologist is performing tasks during the fluoroscopic examination, pursuant to CCR, title 17, section 30450, that are reserved for individuals possessing a Radiologic Technology Fluoroscopy Permit.

NOTE: The Department issues citations to individuals who perform fluoroscopy without possessing the required certifications, as well as to those responsible for allowing the violations to occur. In example 7, the Cardio-Vascular Technologist will be cited for performing fluoroscopy without the required authorization, as will the Cardiologist for aiding and abetting this violation pursuant to the Health & Safety Code, Sections 106965 and 106970. Hospital management is also subject to sanction.

Example 9

Hospitals often provide medical services through Cardiac Catheterization, Interventional, and other similar labs, and fluoroscopy is an integral part of these services. To minimize the staffing impact of having CRTs with fluoroscopic permits available during these procedures, can Cardio-Vascular Technologists, nurses, or other non-radiologic staff obtain permits to perform fluoroscopy?

Answer: No. Regulations only authorize Certified Radiologic Technologists or licentiates of the healing arts to receive certification to operate, or supervise the operation of, fluoroscopic equipment.

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NOTE: Additional requirements regarding fluoroscopy are found in California Code of Regulations, title 17, as follows:

Section 30255: Specifies requirements for notices, instructions, and reports to personnel and applies to all persons who receive, possess, use, own, or transfer equipment registered with the Department.

Section 30305: Specifies requirements for the use of X-ray in the healing arts. The requirements apply to use of X-rays in medicine, dentistry, osteopathy, chiropractic, podiatry, and veterinary medicine.

Section 30307: Specifies requirements for fluoroscopic equipment and operating procedures while using fluoroscopic equipment.

Section 30253: This section incorporates, by reference, section 20.1101 of title 10, Code of Federal Regulations (January 1, 2005), which requires a user to develop, document, and implement a radiation protection program commensurate with the scope of activities and sufficient to ensure compliance. It further requires the user to review, at least annually, the program's content and implementation.

Also, Section 106980 of the Health and Safety Code prohibits both the CRT and limited permit X-ray technician from performing certain functions.

Signature on file

December 11, 2008

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Date