

Assembly Bill No. 929

CHAPTER 427

An act to add Section 115061 to the Health and Safety Code, relating to radiation technology.

[Approved by Governor September 30, 2005. Filed with
Secretary of State September 30, 2005.]

LEGISLATIVE COUNSEL'S DIGEST

AB 929, Oropeza. Radiologic technology: radiation exposure.

Under existing law, the State Department of Health Services administers provisions that establish standards for, and regulates sources of, ionizing radiation. Violation of these standards and regulations is a crime.

This bill would require the Radiologic Health Branch of the department to adopt regulations that require personnel and facilities using radiation-producing equipment for medical and dental purposes to maintain and implement medical and dental quality assurance standards for the protection of the public health and safety. The bill would require the adoption of regulations and the submission of the regulations to the health committees of the Assembly and Senate on or before January 1, 2008. By changing the definition of a crime, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

The people of the State of California do enact as follows:

SECTION 1. (a) The Legislature finds and declares all of the following:

(1) (A) More than 300,000,000 medical and dental imaging examinations and radiation therapy treatments are administered annually in the United States. Proper use of ionizing radiation is an extremely important life-saving therapy for many cancer patients. Seven out of every 10 Americans undergo a medical or dental imaging examination or radiation therapy treatment every year in the United States.

(B) These procedures are useful in the diagnosis of medical conditions. However, the administration of medical and dental imaging examinations and the effect of these procedures on individuals have a substantial and direct effect upon public health and safety.

(C) It is in the interest of public health and safety to minimize unnecessary or inappropriate exposure to radiation from medical and dental radiological procedures.

(2) In 2005, about 135,000 Californians will be diagnosed with cancer and about 54,000 will die of the disease. Cancer incidence is rising throughout the United States. In the United States, one in three women and one in two men will face cancer during their lifetime. Exposure to radiation such as through X-rays, CT scans, fluoroscopy, and other medical and dental radiological procedures is contributing to the high rates in the United States.

(3) In January 2005, the National Toxicology Program classified x-radiation and gamma radiation as known human carcinogens. The report stated that “exposure to these kinds of radiation cause many types of cancer including leukemia and cancers of the thyroid, breast and lung . . . Exposure to x-radiation and gamma radiation has also been shown to cause cancer of the salivary glands, stomach, colon, bladder, ovaries, central nervous system and skin.” Diagnostic radiation is valuable in the practice of medicine and dentistry today. However, patients have a right to know that procedures involving exposure to radiation entail risks as well as benefits.

(4) According to a leading scientist with the National Cancer Institute, “More is known about the relationship between radiation dose and cancer risk than any other human carcinogen, and female breast cancer is the best quantified radiation-related cancer.” Breast cancer is the most commonly diagnosed cancer among women in California and in the United States. Each year in California approximately 21,000 women will be diagnosed with the disease and 4,000 will die from it.

(5) To reduce the risk of radiation-related cancer, physicians, dentists, other health care providers, technologists, equipment manufacturers, and the government share the responsibility to minimize radiation exposure of patients. Exposures should be as low as reasonably achievable without sacrificing image quality. Studies have shown that often patients are not provided with sufficient information on the merits and potential adverse effects of diagnostic imaging procedures. In addition, the popularity of self-referred whole body CT scans has increased concern among radiologists and cancer specialists. The United States Food and Drug Administration has never approved CT scans for screening any part of the body for any specific disease, let alone for screening the whole body when there are no specific symptoms of a disease. The American College of Radiology states that “there is no evidence that total body CT screening is cost efficient or effective in prolonging life.” Scientists at Columbia University found that a single full-body CT scan exposes a person to a radiation dose nearly 100 times that of a typical mammogram. Improving patient awareness and protection during radiologic imaging is a critical step toward reducing a preventable cause of cancer.

(6) According to the National Cancer Institute, children are uniquely vulnerable to harm from radiation exposure because they are more

sensitive to radiation than adults. Children have a longer life expectancy after exposure, creating a larger window of opportunity for expressing radiation damage. For example, CT scans deliver a much higher radiation dose than conventional X-rays. Approximately 2 to 3 million CT scan examinations are performed annually on children in the United States. The use of CT scans has increased seven-fold in the past 10 years.

(7) In 2001, the State of New Jersey developed and implemented a “Quality Assurance Program” that has led to a reduction in ionizing radiation exposure.

(b) It is the intent of the Legislature in enacting this act to promote best practices as a proven means to reduce the exposure to ionizing radiation, and increase and maintain diagnostic image quality.

SEC. 2. Section 115061 is added to the Health and Safety Code, to read:

115061. (a) In order to better protect the public and radiation workers from unnecessary exposure to radiation and to reduce the occurrence of misdiagnosis, the Radiologic Health Branch within the State Department of Health Services shall adopt regulations that require personnel and facilities using radiation-producing equipment for medical and dental purposes to maintain and implement medical and dental quality assurance standards that protect the public health and safety by reducing unnecessary exposure to ionizing radiation while ensuring that images are of diagnostic quality. The standards shall require quality assurance tests to be performed on all radiation-producing equipment used for medical and dental purposes.

(b) The Radiological Health Branch shall adopt the regulations described in subdivision (a) and provide the regulations to the health committees of the Assembly and the Senate on or before January 1, 2008.

(c) For purposes of this section “medical and dental quality assurance” means the detection of a change in X-ray and ancillary equipment that adversely affects the quality of films or images and the radiation dose to the patients, and the correction of this change.

SEC. 3. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.