

**TITLE 17, California Code of Regulations  
Division 1, Chapter 5, Subchapter 4.0,  
Group 2  
Article 3. Exemptions**

Amend Section 30180 to read as follows:

**§ 30180. Exempt Persons, Products, Concentrations and Quantities Carriers, Federal Licensees and Prime Contractors.**

(a) Common and contract carriers, freight forwarders, warehousemen, and the U.S. Postal Service are exempt from the requirements for a license specified in section 30190 and sections 30191 through 30235, and from Group 3 of this subchapter, to the extent that they transport or store radioactive material in the regular course of carriage for another entity or storage incident thereto. Such carriers are subject to the provisions of Group 4, Transportation of Radioactive Material. This exemption does not authorize the export from, or import into, the United States of byproduct, source, or special nuclear material.

(b) A person is exempt from this Group if that person is licensed by the United States Nuclear Regulatory Commission (NRC) under Title 10, Code of Federal Regulations, Part 150, Section 150.15, Continued Commission Regulatory Authority in Agreement States, or as otherwise specified per an agreement between the Department and NRC.

(c) A person is exempt from the requirements for a license set forth in the Act and from section 30190 and sections 30191 through 30235, and from Group 3 of this subchapter to the extent that such person, operating within the confines of the person's prime contract with the NRC or the United States Department of Energy (DOE), manufactures, produces, transfers, receives, acquires, owns, possesses, or uses radioactive material for:

(1) The performance of work for the NRC or DOE at a United States Government-owned (federally-owned) or controlled site, including the transportation of radioactive material to or from such site;

(2) The performance of contract services during temporary interruptions of the transportation of radioactive material under paragraph (1);

(3) Research in, or development, manufacture, storage, testing or transportation of, atomic weapons or components thereof; or

(4) The operation of nuclear reactors or other nuclear devices in a federally-owned vehicle or vessel.

(d) In addition to subsection (c), a prime contractor or subcontractor of the NRC or DOE is exempt from the requirements for a license set forth in the Act and from section 30190 and sections 30191 through 30235, and from Group 3 of this subchapter, to the extent that such prime contractor or subcontractor manufactures, produces, transfers, receives, acquires, owns, possesses, or uses radioactive material under his prime contract or subcontract, or to the extent that the Department and NRC or DOE jointly determine that the exemption of the prime contractor or subcontractor is authorized by law and that, under the terms of the contract or subcontract, there is adequate assurance that the work thereunder can be accomplished without undue risk to the public health and safety.

~~(a) Any person is exempt from this regulation if such person:~~

~~(1) Is a common and contract carrier transporting radioactive material in the regular course of their carriage for another or storage incident thereto. Such carriers are subject to the provisions of Group 4, Transportation of Radioactive Material.~~

~~(2) Is licensed by the United States Nuclear Regulatory Commission under Title 10, Code of Federal Regulations, Part 150, Section 150.15, Continued Commission Regulatory Authority in Agreement States, or otherwise agreed upon by the Department and the Commission.~~

~~(3) Is under a prime contract with the United States Nuclear Regulatory Commission or the United States Department of Energy at a U.S. Government-owned or controlled site, including the transporting of radioactive material to or from such site, the performance of contract services during temporary interruptions of such transportation; for research in or development, manufacture, storage, testing or transportation of atomic weapons or components thereof; or for the use of nuclear devices in U.S. Government-owned vehicle or vessel; or under a subcontract when it is jointly determined by the Department and the United States Nuclear Regulatory Commission that an exemption is appropriate.~~

~~(b) The following products are exempt from this regulation:~~

~~(1) Timepieces, hands or dials therefor, containing any radioactive luminous material provided these have been distributed as exempt products in accordance with a United States Nuclear Regulatory Commission license; and any timepieces, hands or dials therefore containing radium activated luminous material.~~

~~(2) Automobile lock illuminators containing up to 15 millicuries of tritium or 2 millicuries of promethium 147 per lock.~~

~~(3) Compounds or mixtures with rare earth elements containing up to 0.25% by weight of source material.~~

~~(4) Glazed ceramic tableware containing up to 20% by weight of source material in the glaze.~~

~~(5) Glassware containing not more than 10 percent by weight source material; but not including commercially manufactured glass brick, pane glass, ceramic tile, or other glass or ceramic used in construction;~~

~~(6) Glass enamel or glass enamel frit containing not more than 10 percent by weight source material imported or ordered for importation into the United States, or initially distributed by manufacturers in the United States, before July 25, 1983.~~

~~(7) Photographic film, negatives, and prints containing source material.~~

~~(8) Incandescent gas mantles, vacuum tubes, electric lamps, and welding rods containing thorium.~~

~~(9) Any finished product or part fabricated of, or containing, tungsten thorium or magnesium thorium alloys; provided that the thorium content of the alloy does not exceed 4% by weight.~~

~~(10) Finished optical lenses containing up to 30% by weight of thorium, but not including spectacles, contact lenses, or eyepieces of optical instruments and subject to not altering the finished product by any process such as shaping, grinding, or polishing.~~

~~(11) Fire detector heads containing up to 0.005 microcuries of uranium per head.~~

~~(12) Electric lamps for illuminating purposes provided that each lamp does not contain more than 50 milligrams of thorium.~~

~~(13) Germicidal lamps, sun lamps and lamps for outdoor or industrial lighting provided that each lamp does not contain more than two grams of thorium.~~

~~(14) Personnel neutron dosimeters provided that each dosimeter does not contain more than 50 milligrams of thorium.~~

~~(15) Shipping containers utilizing natural or depleted uranium metal as shielding, if such container is and remains:~~

~~(A) Conspicuously impressed with the legend: "CAUTION RADIOACTIVE SHIELDING URANIUM" and;~~

~~(B) The uranium metal is encased in mild steel or equally fire resistant metal of minimum wall thickness of one eighth inch (3.2 mm).~~

~~(16) Counterweights of uranium installed in, or store or handled in connection with installation in or removal from, aircraft, rockets, projectiles, or missiles, if each such counterweight has been manufactured pursuant to an appropriate specific license; and~~

~~(A) each counterweight manufactured prior to December 31, 1969 has been, and remains, impressed, labeled and marked in accordance with the provisions of that specific license at the time of manufacture;~~

~~(B) each counterweight manufactured on or after December 31, 1969 has been impressed with the following legend clearly legible through any plating or other covering: "DEPLETED URANIUM"; and is durably and legibly labeled or marked with the identification of the manufacturer, and the statement: "UNAUTHORIZED ALTERATIONS PROHIBITED."~~

~~(17) Precision balances or parts therefor, provided that no such balance contains more than 1.0 millicurie of tritium and no balance part contains more than 0.5 millicurie of tritium.~~

~~(18) Automobile shift quadrants containing not more than 25 millicuries of tritium.~~

~~(19) Marine compasses containing not more than 750 millicuries of tritium gas and other marine navigational instruments containing not more than 250 millicuries of tritium gas.~~

~~(20) Thermostat dials and pointers containing not more than 25 millicuries of tritium per thermostat.~~

~~(21) Thorium contained in any finished aircraft engine part containing nickel-thoria mixture, provided that:~~

~~(A) The thorium is dispersed in the nickel-thorium mixture in the form of finely divided thorium dioxide; and~~

~~(B) The thorium content of the mixture does not exceed 4% by weight.~~

~~(22) Electron tubes: Provided that each tube does not contain more than one of the following specified quantities of radioactive material:~~

~~(A) 150 millicuries of tritium per microwave receiver protector tube or 10 millicuries of tritium per any other electron tube;~~

~~(B) 1 microcurie of cobalt 60;~~

~~(C) 5 microcuries of nickel 63;~~

~~(D) 30 microcuries of krypton 85;~~

~~(E) 5 microcuries of cesium 137;~~

~~(F) 30 microcuries of promethium 147;~~

~~and provided further, that these have been manufactured and distributed pursuant to an appropriate specific license. Note: Electron tubes include spark gap tubes, power tubes, gas tubes including glow lamps, receiving tubes, microwave tubes, indicator tubes, pick-up tubes, radiation detection tubes and any other completely sealed tube that is designed to conduct or control electrical currents.)~~

~~(23) Synthetic plastic resins containing scandium 46 and designed for sand consolidation in oil wells provided such resins shall have been manufactured or imported in accordance with a specific license which authorizes their distribution as exempt products.~~

~~(24) Intact meters containing radium activated luminous material.~~

~~(25) Piezoelectric ceramic containing not more than 2 percent by weight source material.~~

~~(26) Gas and aerosol detectors containing radioactive material and designed to protect life or property from fires and airborne hazards provided such detectors have been manufactured or imported in accordance with a specific license which authorizes their distribution as exempt products.~~

~~(27) Self-luminous products containing tritium, krypton 85, or promethium 147 provided such products have been manufactured or imported in accordance with a specific license which authorizes their distribution as exempt products, and provided further that such products are not used primarily for frivolous purposes or as toys or adornments.~~

~~(28) Ionizing radiation measuring instruments containing, for purposes of internal calibration or standardization, one or more sources of radioactive material, provided that:~~

~~(A) Each source contains no more than one exempt quantity set forth in section 30235, Schedule A, and~~

~~(B) Each instrument contains no more than ten exempt quantities. For purposes of subsection (b)(28)(A) and (B), an instrument's source(s) may contain either one type or different types of radionuclides, and an individual exempt quantity may be composed of fractional parts of one or more of the exempt quantities in section 30235, Schedule A, provided that the sum of such fractions shall not exceed unity.~~

~~(C) For purposes of subsection (b)(28)(B), 0.05 microcurie of americium 241 is considered an exempt quantity under section 30235, Schedule A.~~

~~(29) Spark gap irradiators containing not more than one microcurie of cobalt-60 per spark gap irradiator for use in electrically ignited fuel oil burners having a firing rate of at least three gallons per hour (11.4 liters per hour).~~

~~(30) Capsules containing one microcurie of carbon 14 urea each, for in vivo diagnostic use for humans. Persons who use the capsules for research involving human subjects shall possess a specific license issued pursuant to section 30195.~~

~~(c) The following concentrations and quantities are exempt from this regulation:~~

~~(1) Any naturally occurring radioactive material, except source material, in concentrations which occur naturally. Unprocessed ore in its natural form containing source material is exempt. Refining and processing are not exempt.~~

~~(2) Any chemical mixture, compound, solution or alloy containing up to one-twentieth of one percent (0.05 percent) by weight of source material.~~

~~(3) Any radioactive material in concentration not exceeding those specified in section 30237, Schedule C, except that a specific license shall be required by any person to transfer possession or control of any product or material into which radioactive material has been introduced in such concentrations except for transfers to appropriately licensed persons for analytical test or waste disposal purposes.~~

~~(4) Radioactive material in individual quantities each of which does not exceed the applicable quantity set forth in section 30235, Schedule A, if not more than 10 such scheduled quantities are possessed at any one time.~~

~~(d) The exemptions contained in subsection (b) shall not authorize any of the following:~~

~~(1) The manufacture of any product listed.~~

~~(2) The application or removal of radioactive luminous material to or from meters and timepieces, or hands and dials therefor.~~

~~(3) The installation into automobile locks of illuminators containing tritium or promethium 147 or the application of tritium to balances of precision or parts therefor.~~

~~(4) The chemical, physical, or metallurgical treatment or processing of thorium-metal alloys.~~

~~(5) Human use, or the use in any device or article, except time pieces and the product specified in subsection (b)(30), which is intended to be placed on or in the human body.~~

~~(6) The chemical, physical, or metallurgical treatment or processing of uranium counterweights other than repair or restoration of any plating or other covering.~~

~~(e) The exemptions specified in subsections (b)(30), (c)(3) or (c)(4) shall not authorize the production, packaging, repackaging or transfer of radioactive material for purposes of commercial distribution, or the incorporation of radioactive material into products intended for commercial distribution.~~

~~Note: Authority cited: Sections 100275 and 115000, Health and Safety Code.~~

~~Reference: Sections 114965, 114970, 115000, 115165 and 115235, Health and Safety Code.~~

~~Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.~~

~~Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.~~

Adopt Section 30180.1 to read as follows:

**§ 30180.1. Exempt Concentrations.**

(a) A person is exempt from the requirements for a license specified in section 30190, sections 30191 through 30235, and from Group 3 of this subchapter, to the extent that such person receives, possesses, uses, transfers, owns or acquires products or materials containing radioactive material in concentrations not in excess of those listed in section 30237.

(b) This section shall not be deemed to authorize the import of radioactive material or products containing radioactive material.

(c) A manufacturer, processor, or producer of a product or material is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30235, and from Group 3 of this subchapter, to the extent that such person transfers radioactive material contained in a product or material in concentrations not in excess of those specified in section 30237 and introduced into the product or material by a licensee holding a specific license issued by the U.S. Nuclear Regulatory Commission (NRC), expressly authorizing such introduction.

(d) The exemptions in this section do not apply to the transfer of radioactive material contained in any food, beverage, cosmetic, drug, or other commodity or product designed for ingestion or inhalation by, or application to, a human being.

(e) A person may not introduce radioactive material into a product or material, knowing or having reason to believe that it will be transferred to persons exempt under this section, except in accordance with a specific license issued by the NRC pursuant to section 32.11 in title 10, Code of Federal Regulations, Part 32 (10 CFR 32). This provision shall not be construed to incorporate by reference 10 CFR 32, section 32.11.

(f) A person is exempt from this subchapter to the extent that such person receives, possesses, uses, transfers, owns or acquires naturally occurring radioactive material in concentrations which occur naturally. Refining and processing are not exempt.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.

Adopt Section 30180.2 to read as follows:

**§ 30180.2. Certain Items Containing Radioactive Material.**

(a) A person who possesses or transfers a timepiece, or a component thereof, which is described as follows is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, notwithstanding the fact that the timepiece or component contains radioactive material:

(1) The timepieces or its component hands or dials contains tritium which does not exceed:

(A) 25 millicuries of tritium per timepiece;

(B) Five millicuries of tritium per hand;

(C) 15 millicuries of tritium per dial (bezels when used shall be considered as part of the dial).

(2) The timepiece, or its component hands or dials, contains promethium 147 which does not exceed:

(A) 100 microcuries per watch or 200 microcuries per any other timepiece;

(B) 20 microcuries per watch hand or 40 microcuries per other timepiece hand;

(C) 60 microcuries per watch dial or 120 microcuries per other timepiece dial (bezels when used shall be considered as part of the dial).

(3) The hands or dials of the timepiece contain promethium 147 which, when measured through 50 milligrams per square centimeter of absorber, does not exceed:

(A) 0.1 millirad per hour at 10 centimeters from any surface for wrist watches;

(B) 0.1 millirad per hour at one centimeter from any surface for pocket watches;

and

(C) 0.2 millirad per hour at 10 centimeters from any surface for any other timepiece.



(4) An intact timepiece manufactured prior to November 30, 2007 containing radium-226 which does not exceed one microcurie.

(b) A person who possesses or transfers a device described as follows, or who possesses such a device received or acquired before [effective date of regulation to be inserted by Office of Administrative Law], under the general license then provided in section 30192, is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter:

(1) Static elimination devices containing not more than 500 microcuries of polonium-210 per device;

(2) Ion generating tubes designed for ionization of air containing not more than 500 microcuries of polonium-210 per device or not more than 50 millicuries of hydrogen-3 (tritium) per device;

(c) A person who possesses or transfers a balance of precision containing radioactive tritium is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, provided that the balance contains no more than 0.1 millicurie of tritium or no more than 0.5 millicurie of tritium per balance part, and was manufactured before December 17, 2007.

(d) A person who possesses or transfers a marine compass, or other marine navigational instrument, is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, provided that the marine compass contains no more than 750 millicuries of tritium gas and other marine navigational instruments contain no more than 250 millicuries of tritium gas, and was manufactured before December 17, 2007.

(e) A person who possesses or transfers a smoke detector containing americium-241 is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, provided that not more than one microcurie of americium-241 is incorporated into the detector in the form of a foil and designed to protect life and property from fires.

(f) A person who possesses or transfers an electron tube (tube) containing radioactive material is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter:

(1) Provided that the tube does not exceed the following microcurie limits:

(A) 10 millicuries for tubes containing tritium; except, if the tube is a microwave receiver protector tube, 150 millicuries of tritium;

(B) 1 microcurie for tubes containing cobalt-60;

(C) 5 microcuries for tubes containing nickel-63;

(D) 30 microcuries for tubes containing krypton-85;

(E) 5 microcuries for tubes containing cesium-137;

(F) 30 microcuries for tubes containing promethium-147; and

(2) Provided that the levels of radiation from the electron tube containing radioactive material do not exceed one millirad per hour at one centimeter from any surface when measured through seven milligrams per square centimeter of absorber.

(3) For purposes of subsection (f) "electron tubes" include spark gap tubes, power tubes, gas tubes including glow lamps, receiving tubes, microwave tubes, indicator tubes, pickup tubes, radiation detection tubes, and any other completely sealed tube that is designed to conduct or control electrical currents.

(g) A person who possesses or transfers a measuring instrument, which contains one or more sources of radioactivity for purposes of internal calibration or standardization is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, provided that:

(1) Each source of radioactivity in the instrument which is comprised of a single radionuclide does not exceed the limit set forth in section 30235 for that radionuclide;  
and

(2) Each instrument contains no more than 10 of the radionuclides listed in section 30235;

(3) For purposes of this subsection, an instrument's radioactive source(s) may contain either one type or different types of radionuclides and an individual exempt

quantity may be composed of fractional parts of one or more of the exempt quantities in section 30235, provided that the sum of such fractions shall not exceed unity;

(4) For purposes of the exemptions provided in this subsection, the limit for a radioactive source consisting of americium-241 is 0.05 microcuries, and this limit is deemed to be an exempt quantity under section 30235.

(h) The exemptions provided in this section do not apply to persons who apply or incorporate radioactive material into any product described in this section during the manufacture of such product, or who transfer or transport such a product up through its first sale. This subsection does not apply to subsequent transfers or sales of such a product.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235,  
131050, 131051 and 131052, Health and Safety Code.

Adopt Section 30180.3 to read as follows:

**§ 30180.3. Exempt Quantities.**

(a) Except as provided in subsections (c), (d) and (e), a person is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30231 and 30237, and from Group 3 of this subchapter, to the extent that such person receives, possesses, uses, transfers, owns, or acquires radioactive material in individual quantities, each of which does not exceed the applicable quantity set forth in section 30235.

(b) A person, who possesses radioactive material received or acquired before November 12, 1972, under the general license then provided in section 30192(a)(2), is exempt from the requirements for a license specified in section 30190, sections 30191 through 30237, and from Group 3 of this subchapter to the extent that this person possesses, uses, transfers, or owns radioactive material.

(c) This section does not authorize, for purposes of commercial distribution, the packaging, repackaging, or transfer of radioactive material, or the incorporation of radioactive material into a product intended for commercial distribution.

(d) A person may not, for purposes of commercial distribution, transfer radioactive material in the individual quantities set forth in section 30235, knowing or having reason to believe that such quantities of radioactive material will be transferred to persons exempt under this section, except in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission pursuant to section 32.18 in title 10, Code of Federal Regulations, Part 32 (10 CFR 32). This provision shall not be construed to incorporate by reference 10 CFR 32, section 32.18.

(e) A person may not, for purposes of producing an increased radiation level, combine quantities of radioactive material covered by this exemption so that the aggregate quantity exceeds the limits set forth in section 30235, except for radioactive material combined within a device placed in use before May 3, 1999, or as otherwise specified in this regulation.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235,  
131050, 131051 and 131052, Health and Safety Code.

Adopt Section 30180.4 to read as follows:

**§ 30180.4. Self-Luminous Products Containing Tritium, Krypton-85, or Promethium-147.**

(a) A person is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, to the extent that such person receives, possesses, uses, transfers, owns, or acquires a self-luminous product containing tritium, krypton-85, or promethium-147, provided that such product was manufactured, processed, produced, or initially transferred in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission pursuant to section 32.22 in title 10, Code of Federal Regulations, Part 32 (10 CFR 32). This provision shall not be construed to incorporate by reference 10 CFR 32, section 32.22.

(b) The exemption provided in subsection (a) does not apply to persons who manufacture or process such a product for sale or distribution.

(c) The exemption provided in subsection (a) does not apply to products primarily used for frivolous purposes or as toys or adornments, containing tritium, krypton-85, or promethium-147.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.

Adopt Section 30180.5 to read as follows:

**§ 30180.5. Gas and Aerosol Detectors Containing Radioactive Material.**

(a) A person is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, to the extent that such person possesses or transfers radioactive material in gas and aerosol detectors designed to protect health, safety, or property, provided the detector is manufactured, processed, produced, or initially transferred in accordance with either a specific license issued by the Department prior to November 30, 2007, or by the U.S. Nuclear Regulatory Commission issued in accordance with section 32.26 in title 10, Code of Federal Regulations, Part 32 (10 CFR 32). This provision shall not be construed to incorporate by reference 10 CFR 32, section 32.26.

(b) The exemption in subsection (a) does not apply to persons who manufacture, process, or produce the product specified in subsection (a), or who initially transfer or distribute such a product.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235,  
131050, 131051 and 131052, Health and Safety Code.

Adopt Section 30180.6 to read as follows:

**§ 30180.6. Radioactive Drug: Capsules Containing Carbon-14 Urea for "In Vivo" Diagnostic Use for Humans.**

(a) A person who receives, possesses, uses, transfers, owns, or acquires capsules containing urea impregnated with carbon-14, which are manufactured for "in vivo" diagnostic use in humans, is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, provided that each capsule does not exceed one microcurie (allowing for nominal variation that may occur during the manufacturing process) of carbon-14.

(b) Any person who desires to use a capsule described in subsection (a) for research involving human subjects shall hold a specific license issued pursuant to section 30195 authorizing the medical use of radioactive material.

(c) This section shall not be deemed to authorize the manufacturing, preparation, processing, producing, packaging, repackaging, or transferring for commercial distribution of such capsules.

(d) Nothing in this section relieves persons from complying with applicable U.S. Food and Drug Administration requirements, or other Federal and State requirements, governing the receipt, administration, and use of drugs.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.



Adopt Section 30180.7 to read as follows:

**§ 30180.7. Certain Industrial Products.**

(a) A person is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, to the extent that such person possesses or transfers radioactive material in industrial devices designed and manufactured for detecting, measuring, gauging or controlling thickness, density, level, interface location, radiation, leakage, or qualitative or quantitative chemical composition, or for producing an ionized atmosphere, provided the device is manufactured, processed, produced, or initially transferred in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission in accordance with section 32.30 in title 10, Code of Federal Regulations, Part 32 (10 CFR 32). This provision shall not be construed to incorporate by reference 10 CFR 32, section 32.30.

(b) The exemption in subsection (a):

(1) Does not cover radioactive material not incorporated into a device, such as calibration and reference sources; and

(2) Does not apply to persons who manufacture, process, or produce the device specified in subsection (a), or who initially transfer or distribute such a product.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235,  
131050, 131051 and 131052, Health and Safety Code.

Adopt Section 30181 to read as follows:

**§ 30181. Products Containing and Quantities of Source Material.**

(a) A person is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, to the extent that such person receives, possesses, uses, transfers or delivers source material in any chemical mixture, compound, solution, or alloy in which the source material is by weight less than one-twentieth of one percent (0.05 percent) of the mixture, compound, solution or alloy.

(b) A person is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, to the extent that such person receives, possesses, uses, or transfers unrefined and unprocessed ore containing source material, provided that, except as authorized in a specific license, such person shall not refine or process such ore.

(c) A person is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, to the extent that such person receives, possesses, uses, or transfers:

(1) The following items or materials containing thorium or uranium:

(A) Incandescent gas mantles, vacuum tubes, welding rods, or electric lamps for illuminating purposes, which do not contain more than 50 milligrams of thorium per item;

(B) Germicidal lamps, sunlamps, and lamps for outdoor or industrial lighting, which do not contain more than 2 grams of thorium per item;

(C) Rare earth metals and compounds, mixtures, and products, which do not contain more than 0.25 percent by weight of thorium, uranium, or any combination of these two radioactive materials; or

(D) Neutron-detecting dosimeters, which do not contain more than 50 milligrams of thorium per dosimeter.

(2) Source material contained in the following products:

(A) Glazed ceramic tableware, provided that the glaze contains not more than 20 percent by weight source material;

(B) Piezoelectric ceramic containing not more than 2 percent by weight source material;

(C) Glassware containing not more than 10 percent by weight source material; but not including commercially manufactured glass brick, pane glass, ceramic tile, or other glass or ceramic used in construction;

(D) Glass enamel or glass enamel frit containing not more than 10 percent by weight source material imported or ordered for importation into the United States, or initially distributed by manufacturers in the United States, before July 25, 1983.

(3) Photographic film, negatives, and prints containing uranium or thorium.

(4) Any finished product or part fabricated of, or containing tungsten or magnesium-thorium alloys, provided that the thorium content of the alloy does not exceed 4 percent by weight. The exemption contained in this subparagraph shall not be deemed to authorize the chemical, physical or metallurgical treatment or processing of any such product or part.

(5) Subject to subsection (d), counterweights which contain uranium and which are designed for installation in aircraft, rockets, projectiles, and missiles, or stored or handled in connection with installation or removal of such counterweights, provided that the following requirements are met:

(A) The counterweights are manufactured in accordance with a specific license issued by the Department;

(B) Each counterweight manufactured on or after December 31, 1969 has been impressed with the following legend clearly legible through any plating or other covering: "Depleted Uranium"; and

(C) Each counterweight manufactured on or after December 31, 1969 is durably and legibly labeled or marked with the identification of the manufacturer, and the statement: "Unauthorized Alterations Prohibited";

(6) A shipping container, or part thereof, containing uranium, whether or not depleted, provided that:

(A) The shipping container is conspicuously and legibly impressed with the legend: "CAUTION--RADIOACTIVE SHIELDING--URANIUM"; and

(B) The uranium metal is encased in mild steel or equally fire resistant metal of minimum wall thickness of one-eighth inch (3.2 mm);

(7) Subject to subsection (e), finished optical lenses containing thorium, provided that each lens does not contain more than 30 percent by weight of thorium.

(8) Any finished aircraft engine part containing thorium in a nickel-thoria alloy, provided that:

(A) The thorium is dispersed in the nickel-thoria alloy in the form of finely divided thoria (thorium dioxide); and

(B) The thorium content in the nickel-thoria alloy does not exceed four percent by weight.

(d) The exemption contained in subsection (c)(5) shall not be deemed to authorize the chemical, physical, or metallurgical treatment or processing of any such counterweights, other than the repair or restoration of any plating or other covering.

(e) The exemption contained in subsection (c)(7) shall not be deemed to authorize either:

(1) The shaping, grinding or polishing of such lens or manufacturing processes, other than the assembly of such lens into optical systems and devices without any alteration of the lens; or

(2) The receipt, possession, use, or transfer, of thorium contained in contact lenses, or in spectacles, or in eyepieces in binoculars or other optical instruments.

(f) The exemptions in subsection (c) do not authorize the manufacture of any of the products described therein.

(g) A person is exempt from the requirements for a license specified in section 30190 and sections 30191 through 30237, and from Group 3 of this subchapter, to the extent that such person receives, possesses, uses, or transfers detector heads, used in fire detection units, which contain uranium, provided that each detector head contains not more than 0.005 microcurie of uranium. This exemption does not authorize the manufacture of any detector head containing uranium.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235,  
131050, 131051 and 131052, Health and Safety Code.

Amend Section 30190 to read as follows:

**§ 30190. Types of Licenses.**

(a) *No change to text.*

(b) *No change to text.*

(c) Specific licenses are issued to named persons upon approval of an application filed pursuant to this regulation. A specific license issued by the Department is required by any person to possess any radioactive material in this state, except as otherwise provided in sections 30180, 30180.1, 30180.2, 30180.3, 30180.4, 30180.5, 30180.6, 30180.7, 30181, 30191, ~~30192~~, 30192.1, 30192.2, 30192.3, 30192.4, 30192.5, 30192.6, 30192.7, 30225, or 30226.

(d) *No change to text.*

Note: Authority cited: Sections 114970, 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114970, 115060, 115165, 115235, 131050, 131051 and 131052, Health and Safety Code.

Repeal Section 30192:

**§ 30192. General Licenses - Static Elimination or Ion Generation Devices.**

~~(a) A general license is hereby issued to any person, authorizing possession, transference, receipt, acquisition, use and ownership of radioactive material incorporated in any of the following items when manufactured, tested, and labeled pursuant to a specific license, which authorizes distribution to general licensees:~~

~~(1) Static eliminators containing sealed sources of up to 500 microcuries of polonium-210 per device.~~

~~(2) Air ionization devices containing, as sealed sources, up to 500 microcuries of polonium-210 or 50 millicuries of tritium per device.~~

~~(b) Possession of radioactive material listed in this section is exempt from the requirements of Group 3 of this subchapter, except for sections 30254 and 30293(a) of this subchapter and sections 20.2201 and 20.2202 of title 10, Code of Federal Regulations, Part 20, incorporated by reference in section 30253.~~

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 114985(g), 115060, 115165, 115235, 131050, 131051 and 131052, Health and Safety Code.

Amend Section 30192.1 to read as follows:

**§ 30192.1. General Licenses - Gauging and Controlling.**

(a) *No changes to text.*

(b) The general license issued pursuant to subsection (a) applies only to radioactive material contained in devices which have been manufactured or initially transferred and labeled in accordance with the provisions of:

(1) A specific license, which authorizes distribution of the device, issued by the Department pursuant to section ~~30195(d)~~30196;

(2) and (3) *No changes to text.*

(c) through (e) *No changes to text.*

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 114985(g), 115060, 115165, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.



Adopt Section 30192.7 to read as follows:

**§ 30192.7. General Licenses – Items and Self-Luminous Products Containing Radium-226.**

(a) A general license is hereby issued to any person to acquire, receive, possess, use, or transfer, in accordance with subsections (b), (c), and (d), radium-226 contained in the following products manufactured prior to November 30, 2007:

(1) Antiquities originally intended for use by the general public. For the purposes of this paragraph, antiquities mean products originally intended for use by the general public and distributed in the late 19th and early 20th centuries, such as radium emanator jars, revigators, radium water jars, radon generators, refrigerator cards, radium bath salts, and healing pads;

(2) Intact timepieces containing greater than one microcurie, nonintact timepieces, and timepiece hands and dials no longer installed in timepieces;

(3) Luminous items installed in air, marine, or land vehicles;

(4) All other luminous products, provided that no more than 100 items are used or stored at the same location at any one time; and

(5) Small radium sources containing not more than one microcurie of radium-226. For purposes of this paragraph, "small radium sources" means discrete survey instrument check sources, sources contained in radiation measuring instruments, sources used in educational demonstrations (such as cloud chambers and spinthariscopes), electron tubes, lightning rods, ionization sources, static eliminators, or other sources as designated by the U.S. Nuclear Regulatory Commission (NRC).

(b) Persons who acquire, receive, possess, use, or transfer radioactive material under the general license issued pursuant to this section are exempt from the provisions of Group 3 of this subchapter, to the extent that the receipt, possession, use, or transfer of radioactive material is within the terms of the general license; provided, however, that this exemption shall not be deemed to apply to any such person specifically licensed under this subchapter.

(c) Any person who acquires, receives, possesses, uses, or transfers radioactive material in accordance with the general license issued pursuant to subsection (a) shall:

(1) Notify the Department should there be any indication of possible damage to the product so that it appears it could result in a loss of the radioactive material. A report containing a brief description of the event, and the remedial action taken, shall be submitted within 30 days of the event;

(2) Not abandon products containing radium-226. The product, and any radioactive material from the product, may only be disposed of by transfer to a person authorized pursuant to a specific license to receive the radium-226 in the product, or as otherwise approved by the Department;

(3) Not export products containing radium-226 except in accordance with an export license issued by NRC pursuant to 10 CFR Part 110. This provision shall not be construed to incorporate by reference 10 CFR Part 110;

(4) Dispose of products containing radium-226 by transfer to a person authorized to receive radium-226 pursuant to a specific license issued by the Department or NRC, or equivalent regulations of an Agreement State, or as otherwise approved by the Department; and

(5) Upon Department request, provide information relating to the general license within 30 calendar days of the date of the request, or such other time specified in the request. If the general licensee is unable to provide the requested information within the allotted time, a request for extending that time shall be submitted prior to the end of the allotted time, and the request for an extension of time shall include a written justification as to why the allotted time should be extended.

(d) The general license issued pursuant to this section does not authorize the manufacture, assembly, disassembly, repair, or import of products containing radium-226, except that timepieces may be disassembled and repaired.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 114985(g), 115000, 115060, 115165, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.

Amend Section 30194 to read as follows:

**§ 30194. Approval of Applications and Specific Terms and Conditions for Specific Licenses.**

(a) and (b) *No Change to Text.*

(c) No license or any right under a license shall be assigned or otherwise transferred unless approved in advance by the Department. The request for transfer of a license shall include the identity and technical and financial qualifications of the proposed transferee, and the financial assurance for decommissioning information required by section 30195.1.

(d) through (f) *No change to text.*

(g) As provided by Section 30195.1, certain applications for specific licenses filed under Group 2 shall contain a proposed decommissioning funding plan or a certification of financial assurance for decommissioning. ~~In the case of renewal applications submitted before January 1, 1996, the submittal of a proposed decommissioning funding plan or a certification of financial assurance for decommissioning may follow the renewal application but shall be submitted on or before January 1, 1996.~~

Note: Authority cited: Sections ~~400110, 100275 and 114975,~~ 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115060, 115165, 115230, ~~and 115235,~~ 131050, 131051 and 131052, Health and Safety Code.

Amend Section 30195 to read as follows:

**§ 30195. Special Requirements for Issuance of Specific Licenses.**

In addition to the requirements set forth in Section 30194, specific licenses for certain specialized uses will be issued only if the following conditions are met:

(a) For human use of radioactive material limited to medical purposes, the applicant submits documentation demonstrating that they are capable of complying with the regulations governing the medical use of radioactive material in title 10, Code of Federal Regulations, Part 35 (10 CFR 35) (January 1, ~~2008~~2013), which is hereby incorporated by reference with the exceptions listed at subsections (a)(1) through (a)(15) below, and upon issuance of a license maintains compliance with said regulations:

(1) through (13) *No Change to Text.*

(14) The date January 1, 2011 is substituted for the date October 24, 2002 found in 10 CFR 35, section 35.57(a)(1) and (b)(1). Subdivisions (a)(2) and (b)(2) of 10 CFR 35, section 35.57 are ~~substituted with~~replaced by the following:

(A) “An individual identified as a Radiation Safety Officer, ~~a teletherapy or medical physicist, or a nuclear pharmacist, or an authorized medical physicist, or an authorized nuclear pharmacist, and physicians, dentists, or podiatrists identified as authorized users for the medical use of radioactive material on a license or an NRC or Agreement State license or a permit issued by a Department, NRC or Agreement State broad scope licensee or NRC master material license permit or by an NRC master material license permittee of broad scope before January 1, 2011~~ who perform only those medical uses for which they were authorized, need not comply with the training requirements of 10 CFR 35, sections 35.50, 35.51, or 35.55, and subparts D through H of 10 CFR 35, respectively.”

(15) *No Changes to Text.*

(b) *No Changes to Text.*

~~(c) For distribution of devices to persons generally licensed under Sections 30192.1 and 30192.6:~~

~~(1) The applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control procedures, labeling, proposed uses and conditions of use, and potential radiation hazards of each device to provide reasonable assurance that:~~

~~(A) the radioactive material contained in the device will not be lost;~~

~~(B) no individual will receive a radiation dose to the whole body or major portion thereof, head and trunk, lens of the eye, gonads, or active blood forming organs in excess of 0.5 rem in a year, under ordinary circumstances of use;~~

~~(C) the device can be safely operated by individuals not trained in radiation safety; and~~

~~(D) the radioactive material within the device would not be accessible to unauthorized individuals.~~

~~(2) The applicant submits a sample of the labels to be affixed to the device which include instructions and precautions for safe operation, and indicates the manner in which the labels will be affixed and their location on the device. Each such label shall bear the statement, "Removal of this label is prohibited."~~

(c) Except as provided in paragraphs (1), (2), and (3), for use of radioactive material in the form of a sealed source or in a device that contains the sealed source, the application either identifies the source or device by the manufacturer and model number by which the source or device was registered with either the Department, pursuant to section 32.210 of title 10, Code of Federal Regulations, Part 32 (10 CFR 32.210), incorporated by reference in section 30196, the U.S. Nuclear Regulatory Commission (NRC), or an Agreement State other than this state; or provides the information identified in 10 CFR 32.210(c), incorporated by reference in section 30196:

(1) For sources or devices manufactured before October 23, 2012 that are not registered with the Department under 10 CFR 32.210, incorporated by reference in section 30196, or with an Agreement State, and for which the applicant is unable to provide all categories of information specified in 10 CFR 32.210(c), the applicant provides:

(A) All available information identified in 10 CFR 32.210(c), incorporated by reference in section 30196, regarding the source, and, if applicable, the device; and

(B) Sufficient additional information to demonstrate that there is reasonable assurance that the radiation safety properties of the source or device are adequate to protect health and minimize danger to life and property. Such information shall include a description of the source or device, a description of radiation safety features, the intended use and associated operating experience of the applicant, and the results of a recent leak test;

(2) For sealed sources and devices allowed to be distributed without registration of safety information in accordance with 10 CFR 32.210(g)(1), incorporated by reference in section 30196, the applicant may supply only the manufacturer, model number, and radionuclide and quantity; and

(3) If it is not feasible to identify each sealed source and device individually, the applicant may propose constraints on the number and type of sealed sources and devices to be used and the conditions under which they will be used, in lieu of identifying each sealed source and device.

(d) An application from a medical facility or educational institution to produce Positron Emission Tomography (PET) radioactive drugs for noncommercial transfer to licensees in its consortium, as defined in section 30195.4(b), that are authorized for medical use pursuant to subsection (a), includes:

(1) A request for authorization for the production of PET radionuclides, or evidence of an existing license issued by the Department, the NRC under 10 CFR 30, or an Agreement State other than this State for a PET radionuclide production facility within its consortium from which it receives PET radionuclides;

(2) Evidence that the applicant is qualified to produce radioactive drugs for medical use by meeting one of the criteria in 10 CFR 32.72(a)(2), incorporated by reference in section 30196;

(3) Information identified in 10 CFR 32.72(a)(3), incorporated by reference in section 30196 regarding the PET drugs to be noncommercially transferred to members of its consortium; and

(4) If the applicant is a pharmacy, in addition to satisfying the requirements in paragraphs (1), (2), and (3), the applicant shall also provide identification of all individuals authorized to prepare the PET radioactive drugs and documentation that each individual meets the requirements of an authorized nuclear pharmacist as specified in 10 CFR 32.72(b)(2), incorporated by reference in section 30196.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 115060, 115165, 115235, 131050, 131051 and 131052, Health and Safety Code.

Amend Section 30195 to read as follows:

**§ 30195.2. Special Requirements for Issuance of Specific Licenses -Emergency Plans.**

(a) In addition to meeting the requirements set forth in sections 30194, 30195, 30195.1 and 30195.3, specific licenses shall be issued only if the requirements specified in subsection (b) are met.

~~(a)~~ The regulations governing application for specific licenses in Title 10, Code of Federal Regulations, ~~Section~~section 30.32, ~~Subsection~~subsection (i) ~~(10 CFR 30.32(i)), as revised January 1, 1994, (January 1, 2013)~~ including section 30.72 of Title 10, Code of Federal Regulations, referenced in such ~~Subsection~~ 10 CFR 30.32(i), are hereby adopted by reference with the following exceptions:

(1) The phrase “radioactive material” as defined in Title 17, California Code of Regulations, ~~Section~~section 30100 is substituted for the phrase “byproduct material.”

(2) Any reference to the Nuclear Regulatory Commission or any component thereof shall be deemed to be a reference to the Department.

~~(b) In addition to the requirements set forth in §§ 30194, 30195, 30195.1 and 30195.3, specific licenses shall be issued only if the requirements specified in Subsection (a) are met.~~

~~Note: Authority cited: Sections 100275 and 115000, Health and Safety Code.  
Reference: Sections 114965, 114970, 115060, 115230, and 115235, Health and Safety Code.~~

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.



Amend Section 30195.3 to read as follows:

**§ 30195.3. Special Requirements for Issuance of Specific Licenses for Use of Sealed Sources in Industrial Radiography.**

(a) *No Change to Text.*

(b) An applicant for a specific license for the use of sealed sources in industrial radiography shall submit:

(1) through (5) *No Change to Text.*

(6) A description of the internal inspection system used to assure that radiographers and ~~radiographer's~~radiographers' assistants comply with Department regulations and license conditions and the applicant's operating and emergency procedures as required by section 30333(e);

(7) through (8) *No Change to Text.*

Note: Authority cited: Sections 114975, 115000, ~~131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115060, 115165, ~~and 115235, 131050, 131051 and 131052,~~ Health and Safety Code.

Adopt Section 30195.4 to read as follows:

**§ 30195.4. Additional Requirements for Specific Licenses Authorized Pursuant to Section 30195(d).**

(a) Specific licenses authorizing, pursuant to section 30195(d), the production of positron emission tomography (PET) radioactive drugs for noncommercial transfer to licensees holding a specific license issued pursuant to section 30195(a) in its consortium, as defined in subsection (b), shall be subject to the following:

(1) Authorization does not relieve the licensee from complying with applicable FDA requirements, or other Federal, and State requirements governing radioactive drugs.

(2) The licensee shall:

(A) Satisfy the labeling requirements in title 10, Code of Federal Regulations section 32.72(a)(4) (10 CFR 32.72(a)(4)), incorporated by reference in section 30196, for each PET radioactive drug transport radiation shield and each syringe, vial, or other container used to hold a PET radioactive drug intended for noncommercial distribution to members of its consortium; and

(B) Possess and use instrumentation to measure the radioactivity of the PET radioactive drugs intended for noncommercial distribution to members of its consortium and meet the procedural, radioactivity measurement, instrument test, instrument check, and instrument adjustment requirements in 10 CFR 32.72(c), incorporated by reference in section 30196.

(3) If the licensee is a pharmacy, the licensee shall require that any individual that prepares PET radioactive drugs be:

(A) An authorized nuclear pharmacist who meets 10 CFR 32.72(b)(2), incorporated by reference in section 30196; or

(B) An individual who is under the supervision of an authorized nuclear pharmacist as specified in 10 CFR 35.27, incorporated by reference in section 30195(a).

(4) If the licensee is a pharmacy who allows an individual to work as an authorized nuclear pharmacist, the licensee shall ensure the individual meets 10 CFR 32.72(b)(5), incorporated by reference in section 30196.

(b) For purposes of subsection (a) and section 30195(d), "consortium" means an association of licensees authorized for medical use pursuant to section 30195(a) and a PET radionuclide production facility in the same geographical area that jointly own or share in the operation and maintenance cost of the PET radionuclide production facility that produces PET radionuclides for use in producing radioactive drugs within the consortium for noncommercial distributions among its associated members for medical use. The PET radionuclide production facility within the consortium may only be located at an educational institution or a medical facility.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115060, 115165, 115235, 131050, 131051 and 131052, Health and Safety Code.

Adopt Section 30196 to read as follows:

**§ 30196. Special Requirements for Issuance of Specific Licenses to Manufacture or Transfer Certain Items Containing Radioactive Material.**

(a) The regulations governing manufacturing or initially transferring items containing radioactive material for sale or distribution in Title 10, Code of Federal Regulations (10 CFR), Part 32 (10 CFR 32) (January 1, 2013) are hereby incorporated by reference with the following exceptions:

(1) Title 10, Code of Federal Regulations, sections 32.1, 32.3, 32.8, 32.11, 32.12, 32.14, 32.15, 32.16, 32.18, 32.19, 32.20, 32.21, 32.21a, 32.22, 32.23, 32.25, 32.26, 32.27, 32.28, 32.29, 32.101, 32.102, 32.103, 32.110, 32.301, and 32.303 and NRC Form 653 referenced in section 32.52 are not incorporated by reference.

(2) Any reference to “byproduct material” in 10 CFR 32 is replaced by the term “radioactive material” as defined Title 17, California Code of Regulations (17 CCR), section 30100.

(3) Any reference to the United States Nuclear Regulatory Commission (NRC) or any component thereof shall be deemed to be a reference to the Department.

(4) Any reference to the term “Agreement State” shall be deemed to be a reference to the term “Agreement State” as defined in 17 CCR section 30100.

(5) Any reference to the below identified federal regulation cited within 10 CFR 32 shall be deemed to be a reference to the below identified Department regulation in this subchapter:

<b><u>Federal regulation cited within 10 CFR 32</u></b>	<b><u>Department regulation within this subchapter</u></b>
<u>§ 30.34(h)</u>	<u>§ 30257</u>
<u>§ 30.33</u>	<u>§ 30194</u>
<u>§ 30.36</u>	<u>§ 30256</u>
<u>§ 30.51</u>	<u>§ 30293</u>
<u>§31.2</u>	<u>§ 30190</u>

<u>§ 31.5</u>	<u>§ 30192.1</u>
<u>§ 31.7</u>	<u>§ 30192.2</u>
<u>§ 31.8</u>	<u>§ 30192.3</u>
<u>§ 31.10</u>	<u>§ 30192.4</u>
<u>§ 31.11</u>	<u>§ 30192.5</u>
<u>10 CFR 20 (any section)</u>	<u>§ 30253</u>

(6) Any reference within 10 CFR 32 to sections found in 10 CFR 35 shall be deemed to be a reference to 17 CCR section 30195(a) except that 10 CFR 35.65 (January 1, 2013) cited within 10 CFR 32.74 is incorporated by reference in this section for the purpose of issuing a specific license pursuant to this section. Section 35.65 of 10 CFR is not incorporated by reference for purposes of issuing a specific license pursuant to 17 CCR section 30195(a).

Note: Authority cited: Sections 114975, 115000, 115091 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115060, 115091, 115092, 115235, 131050, 131051 and 131052, Health and Safety Code.

Repeal Section 30210.2:

**§ 30210.2. Labeling Requirements for the Manufacture, Preparation or Transfer for Commercial Distribution of Drugs Containing Radioactive Material for Human Use as Authorized by a Specific License.**

~~(a) A person applying for a specific license to manufacture, prepare or transfer for commercial distribution radioactive drugs for human use shall satisfy the following labeling requirements:~~

~~(1) A label shall be affixed to each transport radiation shield of a radioactive drug to be transferred for commercial distribution. The label shall include:~~

~~(A) The radiation symbol and the words, "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL";~~

~~(B) The name of the radioactive drug or its abbreviation; and~~

~~(C) The quantity of radioactivity at a specified date and time. For radioactive drugs with a half life greater than 100 days, the time may be omitted.~~

~~(2) A label shall be affixed to each syringe, vial, or other container used to hold a radioactive drug to be transferred for commercial distribution. The label shall include:~~

~~(A) The radiation symbol and the words, "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL", and~~

~~(B) An identifier that ensures that the syringe, vial, or other container can be correlated with the information on the transport radiation shield label.~~

Note: Authority cited: Sections 100275 and 115000, Health and Safety Code.  
Reference: Sections 114965, 114970, 115060, 115165 and 115235, Health and Safety Code.

**Group 2  
 Article 9. Schedules**

Amend Section 30235 to read as follows:

**§ 30235. Schedule A. Exempt Quantities.**

<b>Radionuclide</b>	<b>Microcuries</b>
Antimony 122 (Sb 122)	100
Antimony 124 (Sb 124)	10
Antimony 125 (Sb 125)	10
Arsenic 73 (As 73)	100
Arsenic 74 (As 74)	10
Arsenic 76 (As 76)	10
Arsenic 77 (As 77)	100
Barium 131 (Ba 131)	10
Barium 133 (Ba 133)	10
Barium 140 (Ba 140)	10
<del>Beryllium 7 (Be 7)</del>	<del>400</del>
Bismuth 210 (Bi 210)	1
Bromine 82 (Br 82)	10
Cadmium 109 (Cd 109)	10
Cadmium 115m (Cd 115m)	10
Cadmium 115 (Cd 115)	100
Calcium 45 (Ca 45)	10
Calcium 47 (Ca 47)	100
Carbon 14 (C 14)	100
Cerium 141 (Ce 141)	100
Cerium 143 (Ce 143)	100
Cerium 144 (Ce 144)	1

Cesium 129 (Cs 129)	100
Cesium 131 (Cs 131)	1,000
Cesium 134m (Cs 134m)	100
Cesium 134 (Cs 134)	1
Cesium 135 (Cs 135)	10
Cesium 136 (Cs 136)	10
Cesium 137 (Cs 137)	10
Chlorine 36 (Cl 36)	10
Chlorine 38 (Cl 38)	10
Chromium 51 (Cr 51)	1,000
Cobalt 57 (Co 57)	100
Cobalt 58m (Co 58m)	10
Cobalt 58 (Co 58)	10
Cobalt 60 (Co 60)	1
Copper 64 (Cu 64)	100
Dysprosium 165 (Dy 165)	10
Dysprosium 166 (Dy 166)	100
Erbium 169 (Er 169)	100
Erbium 171 (Er 171)	100
Europium 152 9.2 h (Eu 152 9.2 h)	100
Europium 152 13 yr (Eu 152 13 yr)	1
Europium 154 (Eu 154)	1
Europium 155 (Eu 155)	10
Fluorine 18 (F 18)	1,000
Gadolinium 153 (Gd 153)	10
Gadolinium 159 (Gd 159)	100
Gallium 67 (Ga 67)	100
Gallium 72 (Ga 72)	10



<u>Germanium 68 (Ge 68)</u>	<u>10</u>
Germanium 71 (Ge 71)	100
<u>Gold 195 (Au 195)</u>	<u>10</u>
Gold 198 (Au 198)	100
Gold 199 (Au 199)	100
Hafnium 181 (Hf 181)	10
Holmium 166 (Ho 166)	100
Hydrogen 3 (H 3)	1,000
Indium 111 (In 111)	100
Indium 113m (In 113m)	100
Indium 114m (In 114m)	10
Indium 115m (In 115m)	100
<u>Indium 115 (In 115)</u>	<u>10</u>
Iodine 123 (I 123)	100
Iodine 125 (I 125)	1
Iodine 129 (I 129)	1
Iodine 131 (I 131)	0.1
Iodine 132 (I 132)	10
Iodine 133 (I 133)	1
Iodine 134 (I 134)	10
Iodine 135 (I 135)	10
Iridium 192 (Ir 192)	10
Iridium 194 (Ir 194)	100
Iron 52 (Fe 52)	10
Iron 55 (Fe 55)	100
Iron 59 (Fe 59)	10
Krypton 85 (Kr 85)	100
Krypton 87 (Kr 87)	10

Lanthanum 140 (La 140)	10
<del>Lead 210 (Pb 210)</del>	<del>0.1</del>
Lutetium 177 (Lu 177)	100
Manganese 52 (Mn 52)	10
Manganese 54 (Mn 54)	10
Manganese 56 (Mn 56)	10
Mercury 197m (Hg 197m)	100
Mercury 197 (Hg 197)	100
Mercury 203 (Hg 203)	10
Molybdenum 99 (Mo 99)	100
Neodymium 147 (Nd 147)	100
Neodymium 149 (Nd 149)	100
Nickel 59 (Ni 59)	100
Nickel 63 (Ni 63)	10
Nickel 65 (Ni 65)	100
Niobium 93m (Nb 93m)	10
Niobium 95 (Nb 95)	10
Niobium 97 (Nb 97)	10
Osmium 185 (Os 185)	10
Osmium 191m (Os 191m)	100
Osmium 191 (Os 191)	100
Osmium 193 (Os 193)	100
Palladium 103 (Pd 103)	100
Palladium 109 (Pd 109)	100
Phosphorus 32 (P 32)	10
Platinum 191 (Pt 191)	100
Platinum 193m (Pt 193m)	100
Platinum 193 (Pt 193)	100

Platinum 197m (Pt 197m)	100
Platinum 197 (Pt 197)	100
Polonium 210 (Po 210)	0.1
Potassium 42 (K 42)	10
Potassium 43 (K 43)	10
Praseodymium 142 (Pr 142)	100
Praseodymium 143 (Pr 143)	100
Promethium 147 (Pm 147)	10
Promethium 149 (Pm 149)	10
Rhenium 186 (Re 186)	100
Rhenium 188 (Re 188)	100
Rhodium 103m (Rh 103m)	100
Rhodium 105 (Rh 105)	100
Rubidium 81 (Rb 81)	10
Rubidium 86 (Rb 86)	10
Rubidium 87 (Rb 87)	10
Ruthenium 97 (Ru 97)	100
Ruthenium 103 (Ru 103)	10
Ruthenium 105 (Ru 105)	10
Ruthenium 106 (Ru 106)	1
Samarium 151 (Sm 151)	10
Samarium 153 (Sm 153)	100
Scandium 46 (Sc 46)	10
Scandium 47 (Sc 47)	100
Scandium 48 (Sc 48)	10
Selenium 75 (Se 75)	10
Silicon 31 (Si 31)	100
Silver 105 (Ag 105)	10

Silver 110m (Ag 110m)	1
Silver 111 (Ag 111)	100
Sodium 22 (Na 22)	<u>104</u>
Sodium 24 (Na 24)	10
Strontium 85 (Sr 85)	10
Strontium 89 (Sr 89)	1
Strontium 90 (Sr 90)	0.1
Strontium 91 (Sr 91)	10
Strontium 92 (Sr 92)	10
Sulphur 35 (S 35)	100
Tantalum 182 (Ta 182)	10
Technetium 96 (Tc 96)	10
Technetium 97m (Tc 97m)	100
Technetium 97 (Tc 97)	100
Technetium 99m (Tc 99m)	100
Technetium 99 (Tc 99)	10
Tellurium 125m (Te 125m)	10
Tellurium 127m (Te 127m)	10
Tellurium 127 (Te 127)	100
Tellurium 129m (Te 129m)	10
Tellurium 129 (Te 129)	100
Tellurium 131m (Te 131m)	10
Tellurium 132 (Te 132)	10
Terbium 160 (Tb 160)	10
Thallium 200 (Tl 200)	100
Thallium 201 (Tl 201)	100
<u>Thallium 202 (Tl 202)</u>	<u>100</u>
Thallium 204 (Tl 204)	10

Thulium 170 (Tm 170)	10
Thulium 171 (Tm 171)	10
Tin 113 (Sn 113)	10
Tin 125 (Sn 125)	10
Tungsten 181 (W 181)	10
Tungsten 185 (W 185)	10
Tungsten 187 (W 187)	100
Vanadium 48 (V 48)	10
Xenon 131m (Xe 131m)	1,000
Xenon 133 (Xe 133)	100
Xenon 135 (Xe 135)	100
Ytterbium 175 (Yb 175)	100
Yttrium 87 (Y 87)	10
<u>Yttrium 88 (Y 88)</u>	<u>10</u>
Yttrium 90 (Y 90)	10
Yttrium 91 (Y 91)	10
Yttrium 92 (Y 92)	100
Yttrium 93 (Y 93)	100
Zinc 65 (Zn 65)	10
Zinc 69m (Zn 69m)	100
Zinc 69 (Zn 69)	1,000
Zirconium 93 (Zr 93)	10
Zirconium 95 (Zr 95)	10
Zirconium 97 (Zr 97)	10
Any radioactive material not listed above other than alpha emitting byproduct material.	0.1

~~Note: Authority cited: Sections 100275 and 115000, Health and Safety Code.  
Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230 and 115235,  
Health and Safety Code.~~

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235,  
131050, 131051 and 131052, Health and Safety Code.

Repeal Section 30237:

§ 30237. Schedule C.

Element (atomic number)	Isotope	Column I Gas concentration ( $\mu\text{Ci}/\text{m}^3$ )	Column II Liquid and solid concentration ( $\mu\text{Ci}/\text{m}^2$ )
Antimony (51)	Sb <sup>122</sup>		$3 \times 10^{-4}$
	Sb <sup>124</sup>		$2 \times 10^{-4}$
	Sb <sup>125</sup>		$1 \times 10^{-3}$
Argon (18)	Ar <sup>37</sup>	$1 \times 10^{-3}$	
	Ar <sup>41</sup>	$4 \times 10^{-7}$	
Arsenic (33)	As <sup>73</sup>		$5 \times 10^{-3}$
	As <sup>74</sup>		$5 \times 10^{-4}$
	As <sup>76</sup>		$2 \times 10^{-4}$
	As <sup>77</sup>		$8 \times 10^{-4}$
Barium (56)	Ba <sup>131</sup>		$2 \times 10^{-3}$
	Ba <sup>140</sup>		$3 \times 10^{-4}$
Beryllium (4)	Be <sup>7</sup>		$2 \times 10^{-2}$
Bismuth (83)	Bi <sup>206</sup>		$4 \times 10^{-1}$
Bromine (35)	Br <sup>82</sup>	$4 \times 10^{-7}$	$3 \times 10^{-2}$
Cadmium (48)	Cd <sup>109</sup>		$2 \times 10^{-2}$
	Cd <sup>115m</sup>		$3 \times 10^{-4}$
	Cd <sup>113</sup>		$3 \times 10^{-1}$
Calcium (20)	Ca <sup>45</sup>		$9 \times 10^{-3}$
	Ca <sup>47</sup>		$5 \times 10^{-4}$
Carbon (6)	C <sup>14</sup>	$1 \times 10^{-6}$	$8 \times 10^{-3}$
Cerium (58)	Ce <sup>141</sup>		$9 \times 10^{-4}$
	Ce <sup>143</sup>		$4 \times 10^{-4}$
	Ce <sup>144</sup>		$1 \times 10^{-4}$
Cesium (55)	Cs <sup>131</sup>		$2 \times 10^{-2}$
	Cs <sup>134m</sup>		$6 \times 10^{-2}$
	Cs <sup>134</sup>		$9 \times 10^{-3}$
Chlorine (17)	Cl <sup>36</sup>	$9 \times 10^{-7}$	$4 \times 10^{-3}$
Chromium (24)	Cr <sup>51</sup>		$2 \times 10^{-2}$
Cobalt (27)	Co <sup>57</sup>		$5 \times 10^{-3}$
	Co <sup>58</sup>		$1 \times 10^{-3}$
	Co <sup>60</sup>		$5 \times 10^{-4}$
Copper (29)	Cu <sup>64</sup>		$3 \times 10^{-3}$
Dysprosium (66)	Dy <sup>165</sup>		$4 \times 10^{-3}$
	Dy <sup>166</sup>		$4 \times 10^{-4}$
	Dy <sup>169</sup>		$9 \times 10^{-4}$
Erbium (68)	Er <sup>171</sup>		$1 \times 10^{-3}$
	Er <sup>162</sup>		$6 \times 10^{-4}$
Europium (63)	Eu <sup>152</sup>		$2 \times 10^{-3}$
	Eu <sup>158</sup>		$8 \times 10^{-3}$
Fluorine (9)	F <sup>18</sup>	$2 \times 10^{-6}$	$2 \times 10^{-3}$
Gadolinium (64)	Gd <sup>153</sup>		$2 \times 10^{-3}$
	Gd <sup>159</sup>		$8 \times 10^{-4}$
Gallium (31)	Ga <sup>72</sup>		$4 \times 10^{-4}$
Germanium (32)	Ge <sup>71</sup>		$2 \times 10^{-2}$
Gold (79)	Au <sup>196</sup>		$2 \times 10^{-2}$
	Au <sup>198</sup>		$5 \times 10^{-4}$
	Au <sup>199</sup>		$2 \times 10^{-2}$
Hafnium (72)	Hf <sup>181</sup>		$7 \times 10^{-4}$
Hydrogen (1)	H <sup>3</sup>	$5 \times 10^{-6}$	$3 \times 10^{-2}$
Indium (49)	In <sup>113m</sup>		$1 \times 10^{-2}$
	In <sup>114m</sup>		$2 \times 10^{-4}$
Iodine (53)	I <sup>126</sup>	$3 \times 10^{-9}$	$2 \times 10^{-5}$
	I <sup>131</sup>	$3 \times 10^{-9}$	$2 \times 10^{-3}$
	I <sup>132</sup>	$8 \times 10^{-8}$	$6 \times 10^{-4}$
	I <sup>133</sup>	$1 \times 10^{-8}$	$7 \times 10^{-3}$
	I <sup>134</sup>	$2 \times 10^{-7}$	$1 \times 10^{-3}$
Iridium (77)	Ir <sup>190</sup>		$2 \times 10^{-3}$
	Ir <sup>192</sup>		$4 \times 10^{-4}$
	Ir <sup>194</sup>		$3 \times 10^{-4}$
Iron (26)	Fe <sup>53</sup>		$8 \times 10^{-2}$
	Fe <sup>59</sup>		$6 \times 10^{-4}$
Krypton (36)	Kr <sup>86m</sup>	$1 \times 10^{-6}$	
	Kr <sup>88</sup>	$3 \times 10^{-6}$	
Lanthanum (57)	La <sup>140</sup>		$2 \times 10^{-4}$
Lead (82)	Pb <sup>203</sup>		$4 \times 10^{-3}$
Lutetium (71)	Lu <sup>177</sup>		$1 \times 10^{-3}$
Manganese (25)	Mn <sup>52</sup>		$3 \times 10^{-4}$
	Mn <sup>54</sup>		$1 \times 10^{-3}$
	Mn <sup>56</sup>		$1 \times 10^{-3}$
Mercury (80)	Hg <sup>197m</sup>		$2 \times 10^{-3}$
	Hg <sup>197</sup>		$3 \times 10^{-3}$
	Hg <sup>203</sup>		$2 \times 10^{-4}$
Molybdenum (42)	Mo <sup>99</sup>		$2 \times 10^{-3}$
Neodymium (60)	Nd <sup>147</sup>		$6 \times 10^{-4}$
	Nd <sup>149</sup>		$3 \times 10^{-3}$

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Radioactive Material Regulation Amendments  
Final Text  
November 2014

Element (atomic number)	Isotope	Column I Gas concentration ( $\mu\text{Ci}/\text{ml}^3$ )	Column II Liquid and solid concentration ( $\mu\text{Ci}/\text{ml}^2$ )
Nickel (28)	Ni <sup>66</sup>		$1 \times 10^{-3}$
Niobium (columbium)(41)	Nb <sup>95</sup>		$1 \times 10^{-3}$
	Nb <sup>97</sup>		$9 \times 10^{-3}$
	Nb <sup>97</sup>		$9 \times 10^{-3}$
Osmium (76)	Os <sup>185</sup>		$7 \times 10^{-4}$
	Os <sup>191m</sup>		$3 \times 10^{-2}$
	Os <sup>191</sup>		$2 \times 10^{-3}$
	Os <sup>193</sup>		$6 \times 10^{-4}$
	Os <sup>193</sup>		$6 \times 10^{-4}$
Palladium (46)	Pd <sup>103</sup>		$3 \times 10^{-3}$
	Pd <sup>109</sup>		$9 \times 10^{-4}$
Phosphorus (15)	p <sup>32</sup>		$2 \times 10^{-4}$
Platinum (78)	Pt <sup>191</sup>		$1 \times 10^{-3}$
	Pt <sup>193m</sup>		$1 \times 10^{-2}$
	Pt <sup>197m</sup>		$1 \times 10^{-2}$
	Pt <sup>197</sup>		$1 \times 10^{-3}$
	Pt <sup>197</sup>		$1 \times 10^{-3}$
Polonium (84)	Po <sup>210</sup>		$7 \times 10^{-4}$
Potassium (19)	K <sup>42</sup>		$3 \times 10^{-3}$
Praseodymium (59)	Pr <sup>142</sup>		$3 \times 10^{-4}$
	Pr <sup>143</sup>		$5 \times 10^{-4}$
	Pr <sup>143</sup>		$5 \times 10^{-4}$
Promethium (61)	Pm <sup>147</sup>		$2 \times 10^{-3}$
	Pm <sup>149</sup>		$4 \times 10^{-1}$
	Pm <sup>149</sup>		$4 \times 10^{-1}$
Radium (88)	Ra <sup>223</sup>		$1 \times 10^{-7}$
Radon (86)	Rn <sup>230</sup>	$1 \times 10^{-7}$	
	Rn <sup>222</sup>	$1 \times 10^{-8}$	
	Rn <sup>222</sup>	$1 \times 10^{-8}$	
Rhenium (75)	Re <sup>183</sup>		$6 \times 10^{-3}$
	Re <sup>185</sup>		$9 \times 10^{-4}$
	Re <sup>188</sup>		$6 \times 10^{-4}$
	Re <sup>188</sup>		$6 \times 10^{-4}$
Rhodium (45)	Rh <sup>103m</sup>		$1 \times 10^{-1}$
	Rh <sup>105</sup>		$1 \times 10^{-3}$
	Rh <sup>105</sup>		$1 \times 10^{-3}$
Rubidium (37)	Rb <sup>85</sup>		$7 \times 10^{-4}$
Ruthenium (44)	Ru <sup>97</sup>		$4 \times 10^{-3}$
	Ru <sup>103</sup>		$8 \times 10^{-1}$
	Ru <sup>105</sup>		$1 \times 10^{-3}$
	Ru <sup>106</sup>		$1 \times 10^{-4}$
	Ru <sup>106</sup>		$1 \times 10^{-4}$
Samarium (62)	Sm <sup>133</sup>		$8 \times 10^{-1}$
Scandium (21)	Sc <sup>45</sup>		$4 \times 10^{-4}$
	Sc <sup>47</sup>		$9 \times 10^{-4}$
	Sc <sup>47</sup>		$9 \times 10^{-4}$
Selenium (34)	Se <sup>73</sup>		$3 \times 10^{-3}$
Silicon (14)	Si <sup>31</sup>		$9 \times 10^{-2}$
Silver (47)	Ag <sup>105</sup>		$1 \times 10^{-3}$
	Ag <sup>110m</sup>		$3 \times 10^{-4}$
	Ag <sup>111</sup>		$4 \times 10^{-4}$
	Ag <sup>111</sup>		$4 \times 10^{-4}$
Sodium (11)	Na <sup>24</sup>		$2 \times 10^{-3}$
Strontium (38)	Sr <sup>85</sup>		$1 \times 10^{-3}$
	Sr <sup>89</sup>		$1 \times 10^{-4}$
	Sr <sup>91</sup>		$7 \times 10^{-4}$
	Sr <sup>92</sup>		$7 \times 10^{-4}$
	Sr <sup>92</sup>		$7 \times 10^{-4}$
	Sr <sup>92</sup>		$7 \times 10^{-4}$
Sulfur (16)	S <sup>35</sup>	$9 \times 10^{-8}$	$6 \times 10^{-6}$
Tantalum (73)	Ta <sup>182</sup>		$4 \times 10^{-4}$
Technetium (43)	Tc <sup>99m</sup>		$1 \times 10^{-1}$
	Tc <sup>98</sup>		$1 \times 10^{-3}$
Tellurium (52)	Te <sup>125m</sup>		$2 \times 10^{-3}$
	Te <sup>127m</sup>		$6 \times 10^{-4}$
	Te <sup>127</sup>		$3 \times 10^{-3}$
	Te <sup>129m</sup>		$3 \times 10^{-4}$
	Te <sup>131m</sup>		$6 \times 10^{-4}$
	Te <sup>132</sup>		$3 \times 10^{-4}$
	Te <sup>132</sup>		$3 \times 10^{-4}$
Terbium (65)	Tb <sup>169</sup>		$4 \times 10^{-4}$
Thallium (81)	Tl <sup>200</sup>		$4 \times 10^{-3}$
	Tl <sup>201</sup>		$5 \times 10^{-2}$
	Tl <sup>202</sup>		$1 \times 10^{-3}$
	Tl <sup>202</sup>		$1 \times 10^{-3}$
	Tl <sup>204</sup>		$1 \times 10^{-3}$
Thulium (69)	Tm <sup>170</sup>		$5 \times 10^{-4}$
	Tm <sup>171</sup>		$5 \times 10^{-3}$
	Tm <sup>171</sup>		$5 \times 10^{-3}$
Tin (50)	Sn <sup>113</sup>		$9 \times 10^{-4}$
	Sn <sup>123</sup>		$2 \times 10^{-4}$
	Sn <sup>123</sup>		$2 \times 10^{-4}$
Tungsten (wolfram)(74)	W <sup>181</sup>		$4 \times 10^{-3}$
	W <sup>187</sup>		$7 \times 10^{-4}$
	W <sup>187</sup>		$7 \times 10^{-4}$
Vanadium (23)	v <sup>48</sup>		$3 \times 10^{-4}$
Xenon (54)	Xe <sup>131m</sup>	$4 \times 10^{-6}$	
	Xe <sup>133</sup>	$3 \times 10^{-6}$	
	Xe <sup>135</sup>	$1 \times 10^{-6}$	
	Xe <sup>135</sup>	$1 \times 10^{-6}$	
Ytterbium (70)	Yb <sup>173</sup>		$1 \times 10^{-3}$
Yttrium (39)	y <sup>90</sup>		$2 \times 10^{-4}$
	y <sup>91m</sup>		$3 \times 10^{-3}$
	y <sup>91</sup>		$3 \times 10^{-4}$
	y <sup>92</sup>		$6 \times 10^{-4}$
	y <sup>93</sup>		$3 \times 10^{-4}$



Repeal

Element (atomic number)	Isotope	Column I Gas concentration ( $\mu\text{Ci}/\text{ml}^1$ )	Column II Liquid and solid concentration ( $\mu\text{Ci}/\text{ml}^2$ )
Zinc (30)	Zn <sup>65</sup>	.....	$1 \times 10^{-3}$
	Zn <sup>69m</sup>	.....	$7 \times 10^{-4}$
	Zn <sup>69</sup>	.....	$2 \times 10^{-2}$
Zirconium (40)	Zr <sup>95</sup>	.....	$6 \times 10^{-4}$
	Zr <sup>97</sup>	.....	$2 \times 10^{-4}$
Beta and/or gamma emitting radioactive material not listed above with half-life less than 3 years		$1 \times 10^{-10}$	$1 \times 10^{-6}$

NOTE: 1: Many radioisotopes disintegrate into isotopes which are also radioactive. In expressing the concentrations in Schedule C, the activity stated is that of the parent isotope and takes into account the daughters.

NOTE: 2: Where there is involved a combination of isotopes, the limit for the combination should be derived as follows:

Determine for each isotope in the product the ratio between the concentration present in the product and the exempt concentration established in Schedule C for the specific isotope when not in combination. The sum of such ratios may not exceed "1" (i.e. unity).

Example:

$$\frac{\text{Concentration of Isotope A in Product}}{\text{Exempt concentration of Isotope A}} + \frac{\text{Concentration of Isotope B in Product}}{\text{Exempt concentration of Isotope B}} \leq 1$$

<sup>1</sup> Values are given only for those materials normally used as gases.

<sup>2</sup>  $\mu\text{Ci}/\text{gm}$  for solids.

Note: Authority cited: Sections 100275 and 115000, Health and Safety Code.  
 Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230 and 115235, Health and Safety Code.

Adopt Section 30237 to read as follows:

**§ 30237. Schedule C. Exempt Concentrations.**

<u>Element (atomic number)</u>	<u>Isotope</u>	<u>Column I</u>	<u>Column II</u>
		<u>Gas Concentration</u> $\mu\text{Ci}/\text{ml}^1$	<u>Liquid and Solid Concentration</u> $\mu\text{Ci}/\text{ml}^2$

<u>Antimony (51)</u>	<u>Sb 122</u>		<u>3E-4<sup>3</sup></u>
	<u>Sb 124</u>		<u>2E-4</u>
	<u>Sb 125</u>		<u>1E-3</u>
<u>Argon (18)</u>	<u>A 37</u>	<u>1E-3</u>	
	<u>A 41</u>	<u>4E-7</u>	
<u>Arsenic (33)</u>	<u>As 73</u>		<u>5E-3</u>
	<u>As 74</u>		<u>5E-4</u>
	<u>As 76</u>		<u>2E-4</u>
	<u>As 77</u>		<u>8E-4</u>
<u>Barium (56)</u>	<u>Ba 131</u>		<u>2E-3</u>
	<u>Ba 140</u>		<u>3E-4</u>
<u>Beryllium (4)</u>	<u>Be 7</u>		<u>2E-2</u>
<u>Bismuth (83)</u>	<u>Bi 206</u>		<u>4E-4</u>
<u>Bromine (35)</u>	<u>Br 82</u>	<u>4E-7</u>	<u>3E-3</u>
<u>Cadmium (48)</u>	<u>Cd 109</u>		<u>2E-3</u>
	<u>Cd 115M</u>		<u>3E-4</u>
	<u>Cd 115</u>		<u>3E-4</u>
<u>Calcium (20)</u>	<u>Ca 45</u>		<u>9E-5</u>
	<u>Ca 47</u>		<u>5E-4</u>
<u>Carbon (6)</u>	<u>C 14</u>	<u>1E-6</u>	<u>8E-3</u>
<u>Cerium (58)</u>	<u>Ce 141</u>		<u>9E-4</u>
	<u>Ce 143</u>		<u>4E-4</u>
	<u>Ce 144</u>		<u>1E-4</u>
<u>Cesium (55)</u>	<u>Cs 131</u>		<u>2E-2</u>
	<u>Cs 134m</u>		<u>6E-2</u>
	<u>Cs 134</u>		<u>9E-5</u>
<u>Chlorine (17)</u>	<u>Cl 38</u>	<u>9E-7</u>	<u>4E-3</u>
<u>Chromium (24)</u>	<u>Cr 51</u>		<u>2E-2</u>
<u>Cobalt (27)</u>	<u>Co 57</u>		<u>5E-3</u>
	<u>Co 58</u>		<u>1E-3</u>

	<u>Co 60</u>		<u>5E-4</u>
<u>Copper (29)</u>	<u>Cu 64</u>		<u>3E-3</u>
<u>Dysprosium (66)</u>	<u>Dy 165</u>		<u>4E-3</u>
	<u>Dy 166</u>		<u>4E-4</u>
<u>Erbium (68)</u>	<u>Er 169</u>		<u>9E-4</u>
	<u>Er 171</u>		<u>1E-3</u>
<u>Europium (63)</u>	<u>Eu 152</u> (T/2=9.2 hrs)		<u>6E-4</u>
	<u>Eu 155</u>		<u>2E-3</u>
<u>Fluorine (9)</u>	<u>F 18</u>	<u>2E-6</u>	<u>8E-3</u>
<u>Gadolinium (64)</u>	<u>Gd 153</u>		<u>2E-3</u>
	<u>Gd 159</u>		<u>8E-4</u>
<u>Gallium (31)</u>	<u>Ga 72</u>		<u>4E-4</u>
<u>Germanium (32)</u>	<u>Ge 71</u>		<u>2E-2</u>
<u>Gold (79)</u>	<u>Au 196</u>		<u>2E-3</u>
	<u>Au 198</u>		<u>5E-4</u>
	<u>Au 199</u>		<u>2E-3</u>
<u>Hafnium (72)</u>	<u>Hf 181</u>		<u>7E-4</u>
<u>Hydrogen (1)</u>	<u>H 3</u>	<u>5E-6</u>	<u>3E-2</u>
<u>Indium (49)</u>	<u>In 113M</u>		<u>1E-2</u>
	<u>In 114M</u>		<u>2E-4</u>
<u>Iodine (53)</u>	<u>I 126</u>	<u>3E-9</u>	<u>2E-5</u>
	<u>I 131</u>	<u>3E-9</u>	<u>2E-5</u>
	<u>I 132</u>	<u>8E-8</u>	<u>6E-4</u>
	<u>I 133</u>	<u>1E-8</u>	<u>7E-5</u>
	<u>I 134</u>	<u>2E-7</u>	<u>1E-3</u>
<u>Iridium (77)</u>	<u>Ir 190</u>		<u>2E-3</u>
	<u>Ir 192</u>		<u>4E-4</u>
	<u>Ir 194</u>		<u>3E-4</u>
<u>Iron (26)</u>	<u>Fe 55</u>		<u>8E-3</u>

	<u>Fe 59</u>		<u>6E-4</u>
<u>Krypton (36)</u>	<u>Kr 85M</u>	<u>1E-6</u>	
	<u>Kr 85</u>	<u>3E-6</u>	
<u>Lanthanum (57)</u>	<u>La 140</u>		<u>2E-4</u>
<u>Lead (82)</u>	<u>Pb 203</u>		<u>4E-3</u>
<u>Lutetium (71)</u>	<u>Lu 177</u>		<u>1E-3</u>
<u>Manganese (25)</u>	<u>Mn 52</u>		<u>3E-4</u>
	<u>Mn 54</u>		<u>1E-3</u>
	<u>Mn 56</u>		<u>1E-3</u>
<u>Mercury (80)</u>	<u>Hg 197M</u>		<u>2E-3</u>
	<u>Hg 197</u>		<u>3E-3</u>
	<u>Hg 203</u>		<u>2E-4</u>
<u>Molybdenum (42)</u>	<u>Mo 99</u>		<u>2E-3</u>
<u>Neodymium (60)</u>	<u>Nd 147</u>		<u>6E-4</u>
	<u>Nd 149</u>		<u>3E-3</u>
<u>Nickel (28)</u>	<u>Ni 65</u>		<u>1E-3</u>
<u>Niobium (Columbium) (41)</u>	<u>Nb 95</u>		<u>1E-3</u>
	<u>Nb 97</u>		<u>9E-3</u>
<u>Osmium (76)</u>	<u>Os 185</u>		<u>7E-4</u>
	<u>Os 191M</u>		<u>3E-2</u>
	<u>Os 191</u>		<u>2E-3</u>
	<u>Os 193</u>		<u>6E-4</u>
<u>Palladium (46)</u>	<u>Pd 103</u>		<u>3E-3</u>
	<u>Pd 109</u>		<u>9E-4</u>
<u>Phosphorus (15)</u>	<u>P 32</u>		<u>2E-4</u>
<u>Platinum (78)</u>	<u>Pt 191</u>		<u>1E-3</u>
	<u>Pt 193M</u>		<u>1E-2</u>
	<u>Pt 197M</u>		<u>1E-2</u>
	<u>Pt 197</u>		<u>1E-3</u>
<u>Polonium (84)</u>	<u>Po 210</u>		<u>7E-4</u>

<u>Potassium (19)</u>	<u>K 42</u>		<u>3E-3</u>
<u>Praseodymium (59)</u>	<u>Pr 142</u>		<u>3E-4</u>
	<u>Pr 143</u>		<u>5E-4</u>
<u>Promethium (61)</u>	<u>Pm 147</u>		<u>2E-3</u>
	<u>Pm 149</u>		<u>4E-4</u>
<u>Radium (88)</u>	<u>Ra 223</u>		<u>1E-7</u>
<u>Radon (86)</u>	<u>Rn 222</u>	<u>1E-8</u>	
	<u>Rn 230</u>	<u>1E-7</u>	
<u>Rhenium (75)</u>	<u>Re 183</u>		<u>6E-3</u>
	<u>Re 186</u>		<u>9E-4</u>
	<u>Re 188</u>		<u>6E-4</u>
<u>Rhodium (45)</u>	<u>Rh 103M</u>		<u>1E-1</u>
	<u>Rh 105</u>		<u>1E-3</u>
<u>Rubidium (37)</u>	<u>Rb 86</u>		<u>7E-4</u>
<u>Ruthenium (44)</u>	<u>Ru 97</u>		<u>4E-4</u>
	<u>Ru 103</u>		<u>8E-4</u>
	<u>Ru 105</u>		<u>1E-3</u>
	<u>Ru 106</u>		<u>1E-4</u>
<u>Samarium (62)</u>	<u>Sm 153</u>		<u>8E-4</u>
<u>Scandium (21)</u>	<u>Sc 46</u>		<u>4E-4</u>
	<u>Sc 47</u>		<u>9E-4</u>
	<u>Sc 48</u>		<u>3E-4</u>
<u>Selenium (34)</u>	<u>Se 75</u>		<u>3E-3</u>
<u>Silicon (14)</u>	<u>Si 31</u>		<u>9E-3</u>
<u>Silver (47)</u>	<u>Ag 105</u>		<u>1E-3</u>
	<u>Ag 110M</u>		<u>3E-4</u>
	<u>Ag 111</u>		<u>4E-4</u>
<u>Sodium (11)</u>	<u>Na 24</u>		<u>2E-3</u>
<u>Strontium (38)</u>	<u>Sr 85</u>		<u>1E-4</u>
	<u>Sr 89</u>		<u>1E-4</u>

	<u>Sr 91</u>		<u>7E-4</u>
	<u>Sr 92</u>		<u>7E-4</u>
<u>Sulfur (16)</u>	<u>S 35</u>	<u>9E-8</u>	<u>6E-4</u>
<u>Tantalum (73)</u>	<u>Ta 182</u>		<u>4E-4</u>
<u>Technetium (43)</u>	<u>Tc 96M</u>		<u>1E-1</u>
	<u>Tc 96</u>		<u>1E-3</u>
<u>Tellurium (52)</u>	<u>Te 125M</u>		<u>2E-3</u>
	<u>Te 127M</u>		<u>6E-4</u>
	<u>Te 127</u>		<u>3E-3</u>
	<u>Te 129M</u>		<u>3E-4</u>
	<u>Te 131M</u>		<u>6E-4</u>
	<u>Te 132</u>		<u>3E-4</u>
<u>Terbium (65)</u>	<u>Tb 160</u>		<u>4E-4</u>
<u>Thallium (81)</u>	<u>Tl 200</u>		<u>4E-3</u>
	<u>Tl 201</u>		<u>3E-3</u>
	<u>Tl 202</u>		<u>1E-3</u>
	<u>Tl 204</u>		<u>1E-3</u>
<u>Thulium (69)</u>	<u>Tm 170</u>		<u>5E-4</u>
	<u>Tm 171</u>		<u>5E-3</u>
<u>Tin (50)</u>	<u>Sn 113</u>		<u>9E-4</u>
	<u>Sn 125</u>		<u>2E-4</u>
<u>Tungsten (Wolfram) (74)</u>	<u>W 181</u>		<u>4E-3</u>
	<u>W 187</u>		<u>7E-4</u>
<u>Vanadium (23)</u>	<u>V 48</u>		<u>3E-4</u>
<u>Xenon (54)</u>	<u>Xe 131M</u>	<u>4E-6</u>	
	<u>Xe 133</u>	<u>3E-6</u>	
	<u>Xe 135</u>	<u>1E-6</u>	
<u>Ytterbium (70)</u>	<u>Yb 175</u>		<u>1E-3</u>
<u>Yttrium (39)</u>	<u>Y 90</u>		<u>2E-4</u>
	<u>Y 91M</u>		<u>3E-2</u>
	<u>Y 91</u>		<u>3E-4</u>
	<u>Y 92</u>		<u>6E-4</u>
	<u>Y 93</u>		<u>3E-4</u>

<u>Zinc (30)</u>	<u>Zn 65</u>		<u>1E-3</u>
	<u>Zn 69M</u>		<u>7E-4</u>
	<u>Zn 69</u>		<u>2E-2</u>
<u>Zirconium (40)</u>	<u>Zr 95</u>		<u>6E-4</u>
	<u>Zr 97</u>		<u>2E-4</u>
<u>Beta and/or gamma emitting radioactive material not listed above with half-life less than three years</u>		<u>1E-10</u>	<u>1E-6</u>

Footnotes to Schedule C.

1. Values are given only for those materials normally used as gases.
2. µCi/gm for solids.
3. Numerical value expressed in "E notation" where the letter "E" represents "times ten raised to the power of," thus, replacing the "x 10" in scientific notation, followed by the value of the exponent. (e.g. 1 x 10<sup>2</sup> = 1E2; 1 x 10<sup>-2</sup> = 1E-2)

NOTE 1: Many radioisotopes disintegrate into isotopes which are also radioactive. In expressing the concentrations in Schedule C, the activity stated is that of the parent isotope and takes into account the daughters.

NOTE 2: Where there is involved a combination of isotopes, the limit for the combination should be derived as follows: Determine for each isotope in the product the ratio between the concentration present in the product and the exempt concentration established in Schedule C for the specific isotope when not in combination. The sum of such ratios may not exceed "1" (i.e., unity).

Example:

$$\frac{\text{Concentration of Isotope A in product}}{\text{Exempt concentration of Isotope A}} + \frac{\text{Concentration of Isotope B in product}}{\text{Exempt concentration of Isotope B}} \leq 1$$

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235, 131050, 131051, and 131052, Health and Safety Code.

Amend Section 30253 to read as follows:

**§ 30253. Standards for Protection Against Radiation.**

(a) The regulations governing standards for protection against radiation in title 10, Code of Federal Regulations, part 20, (10 CFR 20) sections 20.1001 through 20.2402 and Appendices A through G, (January 1, ~~2008~~2013) are hereby incorporated by reference with the following exceptions:

(1) through (10) *No Change to Text.*

(11) Sections 30.35(g), 40.36(f), and 70.25(g), as cited in 10 CFR 20.1501(b), shall be deemed to reference section 30256(a); sections 50.75(g) and 72.30(d), as cited in 10 CFR 20.1501(b), are not incorporated by reference.

(b) *No change to text.*

Note: Authority cited: Sections 114975, 115000, ~~131051, 131052, 131055~~ and 131200, Health and Safety Code. Reference: Sections 114960, 114965, 114970, 114985, 114990, 115060, 115105, 115110, 115120, 115165, 115230, ~~and 115235~~, 131050, 131051 and 131052, Health and Safety Code.



**Group 3**  
**Article 2. Notices, Instructions, and Reports to Workers; Inspections and Investigation**

Amend Section 30254 to read as follows:

**§ 30254. Inspection.**

(a) through (c) *No Change to Text.*

(d) Each worker's representative shall be routinely engaged in work under control of the user and shall have received instructions as specified in section 3025530280(b)(1).

(e) through (l) *No Change to Text.*

~~Note: Authority cited: Sections 208 and 25811, Health and Safety Code. Reference: Sections 25801, 25802, 25811 and 25815, Health and Safety Code.~~

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115000, 115060, 115165, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.

Amend Section 30257 to read as follows:

**§ 30257. Bankruptcy Notification.**

(a) Each general licensee required to register pursuant to sections 30192.1(d)(1) or 30192.6(b)(1), and each specific licensee, shall notify the Department in writing immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of title 11 (Bankruptcy) of the United States Code (11 U.S.C.) by or against:

(1) The licensee;

(2) An entity (as that term is defined in ~~11 U.S.C. 101 (14)~~11 U.S.C. 101 (15)) controlling the licensee or listing the license or licensee as property of the estate; or

(3) An affiliate (as that term is defined in 11 U.S.C. 101 (2)) of the licensee.

(b) The notification to the Department shall indicate:

- (1) The bankruptcy court in which the petition for bankruptcy was filed; and
- (2) The date of the filing of the petition.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code.  
Reference: Sections 114965, 114970, 115060, 115175, 115205, 115230, 115235,  
131050, 131051 and 131052, Health and Safety Code.

**Group 3**  
**Article 6. Special Requirements for Radiographic Operations in Industrial Radiography**

Amend Section 30330 to read as follows:

**§ 30330. Definitions Specific to Industrial Radiography.**

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

(b) As used in this article:

(1) through (12) *No Change to Text.*

(13) "Industrial radiography" means the examination of the physical structure, but not the microscopic structure, or elemental or chemical composition, of materials, other than human beings or animals, by nondestructive testing, utilizing radiation;

(14) through (17) *No Change to Text.*

(18) "Radiographer certification" means written approval from a certifying entity listed in section 30335.3(b), indicating that an certifying that the individual has satisfactorily met the requirements to be a radiographer;

(19) through (31) *No Change to Text.*

Note: Authority cited: Sections 114975, 115000, ~~131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115230 ~~and~~, 115235, 131050, 131051 and 131052, Health and Safety Code.

Amend Section 30332 to read as follows:

**§ 30332. Performance Requirements for Radiographic Exposure Devices, Storage Containers, and Source Changers.**

(a) All radiographic exposure devices and associated equipment ~~used after January 10, 1996~~ shall comply with the following:

(1) through (5) *No change to text.*

(b) and (c) *No change to text.*

\*Copies of American National Standard N432-1980 "Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography" (published as NBS Handbook 136, issued January 1981) may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 and from the American National Standards Institute, Inc., 25 West 43<sup>rd</sup> Street, New York, New York 10036 ~~Global Engineering Documents, 1819 L Street, NW, Suite 600, Washington DC 20036~~ or from IHS Standards Store at "<http://global.ihs.com>" using the title as the search parameter.

Note: Authority cited: Sections 114975, 115000, ~~131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115000, 115060, 115230, ~~and 115235, 131051, 131052 and 131052~~, Health and Safety Code.

Amend Section 30332.5 to read as follows:

**§ 30332.5. Quarterly Inventory of Sealed Sources.**

(a) Each user shall conduct a quarterly physical inventory, and make a written record thereof, to account for all sealed sources and all devices containing depleted uranium (DU) under his control.

(b) The records ~~Records of the inventories~~ described in subsection (a) shall be maintained for ~~three years~~, kept available for three years for inspection by the Department and shall include the:

(1) ~~Quantities and kinds of radioactive material;~~ Radionuclide, number of becquerels (curies) or mass (for DU) in each device;

(2) Manufacturer, model, and serial number of each sealed source and/or device, as appropriate;

(~~23~~) Location of all sealed sources or devices;

(~~34~~) Date of the inventory; and

(~~45~~) Name of the individual conducting the inventory.

Note: Authority cited: Sections 114975, 115000, ~~131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115000, 115060, 115230, ~~and 115235, 131050, 131051 and 131052,~~ Health and Safety Code.

Amend Section 30332.6 to read as follows:

**§ 30332.6. Utilization Logs.**

(a) Each user shall maintain current logs, which shall be maintained for three years and kept available for inspection at the address specified in his license, containing the following information for each sealed source:

(1) A description, including the ~~(or~~ make, model, and serial number) of the radiographic exposure device or transport or storage container in which the sealed source is located;

(2) The identity and signature of the radiographer to whom the sealed source is assigned; and

(3) Locations where used and dates of use, including the dates removed and returned to storage.

Note: Authority cited: Sections 114975, 115000, ~~131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115000, 115060, 115230, ~~and~~ 115235, 131050, 131051 and 131052, Health and Safety Code.

Amend Section 30332.8 to read as follows:

**§ 30332.8. Reporting Requirements.**

(a) *No Change to Text.*

(b) The licensee shall include the following information in each report submitted under subsection (a):

- (1) A description of the equipment problem;
- (2) Cause of each incident, if known;
- (3) Manufacturer and model number of equipment involved in the incident;
- (4) Place, time and date of the incident;
- (5) Actions taken to establish normal operations;
- (6) Corrective actions taken or planned to prevent recurrence; and
- (7) Qualifications of personnel involved in the incident.

(c) Reports of radiation exposures submitted to the Department under title 10, Code of Federal Regulations section 20.2203, incorporated by reference in section 30253, which involve failure of safety components of radiography equipment, shall also include the information specified in subsection (b).

(ed) Any licensee conducting radiographic operations or storing radioactive material at any location not listed on the license for a period in excess of 180 days in a calendar year shall notify the Department prior to exceeding the 180 days.

Note: Authority cited: Sections 114975, 115000, ~~131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115105, 115110, ~~and 115235, 131050, 131051 and 131052,~~ Health and Safety Code.

Adopt Section 30332.9 to read as follows:

**§ 30332.9. Labeling, Storage, and Transportation.**

(a) A user may not use a source changer or a container to store licensed material unless the source changer or the storage container has securely attached to it a durable, legible, and clearly visible label bearing:

(1) The standard radiation trefoil symbol (section 20.1901 of title 10, Code of Federal Regulations, Part 20 incorporated by reference in section 30253) in the conventional colors of magenta, purple or black, which has a minimum diameter of 25 millimeters, and which is imposed on a yellow background, which encompasses it; and

(2) In the immediate vicinity of the trefoil symbol, the following language prominently displayed:

CAUTION (or "DANGER")  
RADIOACTIVE MATERIAL  
NOTIFY CIVIL AUTHORITIES (or "NAME OF COMPANY")

(b) A user may not transport licensed material unless the material is packaged, and the package is labeled, marked, and accompanied with appropriate shipping papers in accordance with section 30373.

(c) A user shall ensure that locked radiographic exposure devices and storage containers are physically secured to prevent tampering or removal by unauthorized personnel. The user shall store licensed material in a manner which will minimize danger from explosion or fire.

(d) A user shall lock and physically secure the transport package containing licensed material in the transporting vehicle to prevent accidental loss, tampering, or unauthorized removal of the licensed material from the vehicle.

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.



Amend Section 30333 to read as follows:

**§ 30333. Training and Supervision for Radiographers and Radiographer's Radiographers' Assistants Using Sealed Sources.**

(a) through (e) *No Change to Text.*

(f) Each user shall maintain and keep available for inspection for a period of three years, the following: demonstrating compliance with this section shall be maintained for three years and kept available for inspection.

(1) Records of training of each radiographer and each radiographer's assistant.

The record shall include radiographer certification documents and verification of certification status, copies of written tests, dates of oral and practical examinations, and names of individuals conducting and receiving the oral and practical examinations; and

(2) Records of annual refresher safety training and semi-annual inspections of job performance for each radiographer and each radiographer's assistant. The records shall list the topics discussed during the refresher safety training, the dates the annual refresher safety training was conducted, and names of the instructors and attendees. For inspections of job performance, the records shall also include a list showing the items evaluated and any non-compliances observed by the radiation safety officer.

Note: Authority cited: Sections 114975, 115000, ~~131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115000, 115060, 115230, ~~and 115235, 131050, 131051 and 131052,~~ Health and Safety Code.

Amend Section 30333.1 to read as follows:

**§ 30333.1. Operating and Emergency Procedures.**

(a) *No Change to Text.*

(b) Each user shall maintain a copy of current operating and emergency procedures until the Department terminates the license. Superseded material shall be retained for three years after the change is made.

Note: Authority cited: Sections 114975, 115000, ~~131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115000, 115060, 115230, ~~and 115235, 131050, 131051 and 131052~~, Health and Safety Code.

Amend section 30334 to read as follows:

**§ 30334. Precautionary Procedures in Radiographic Operations Using Sealed Sources.**

(a) through (c) *No Change to existing text.*

(d) During each radiographic operation, radiographic personnel shall maintain direct visual surveillance of the operation to protect against unauthorized entry into a high radiation area, except at permanent radiographic installations where all entryways are locked and the requirements of section 30332.2 are met.

(e) through (h) *No Change to existing text.*

Note: Authority cited: Sections 114975, 115000, 131050, 131051 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115000, 115060, 115230 and 115235, Health and Safety Code.

Amend Section 30336 to read as follows:

**§ 30336. Requirements for Shielded-Room Radiography.**

*No Change to Text.*

\*Copies of American National Standard N537-1976 “Radiological Safety Standard for the Design of Radiographic and Fluoroscopic Industrial X-ray Equipment” (published as NBS Handbook 123, issued August 1977) may be purchased from the American National Standards Institute, Inc., 25 West 43<sup>rd</sup> Street, New York, New York 10036~~Global Engineering Documents, 1819 L Street, NW, Suite 600, Washington DC 20036~~ or from IHS Standards Store at “http://global.ihs.com.” Insert “NBS HDBK 123” for the document number “NBS HDBK 123.” in the Standards Search box.

Note: Authority cited: Sections 114975, 115000, ~~131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, ~~and 115060,~~ 131050, 131051 and 131052, Health and Safety Code.

Amend Section 30336.1 to read as follows:

**§ 30336.1. Requirements for Field Radiography.**

(a) through (o) *No Change to Text.*

(p) If a user possesses a radiation machine such that an individual could, in a single exposure to the primary beam with the machine set at maximum exposure factors, receive an exposure exceeding 10 percent of the occupational dose limits specified in title 10, Code of Federal Regulations, Part 20, subpart C incorporated by reference in section 30253, the user shall establish and maintain an internal inspection program to ensure radiographers and ~~radiographer's~~radiographers' assistants comply with this regulation and registration conditions and the registrant's operating and emergency procedures. The inspection program shall include or provide:

(1) through (2) *No Change to Text.*

(3) Retention of inspection records on the performance of radiographers or ~~radiographer's~~radiographers' assistants for three years.

(q) through (r) *No Change to Text.*

\*Copies of American National Standard N537-1976 "Radiological Safety Standard for the Design of Radiographic and Fluoroscopic Industrial X-ray Equipment" (published as NBS Handbook 123, issued August 1977) may be purchased from the American National Standards Institute, Inc., 25 West 43<sup>rd</sup> Street, New York, New York 10036~~Global Engineering Documents, 1819 L Street, NW, Suite 600, Washington DC 20036~~ or from IHS Standards Store at "<http://global.ihs.com>." Insert "NBS HDBK 123" for the document number "NBS HDBK 123." in the Standards Search box.

Note: Authority cited: Sections 114975, 115000, ~~131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, ~~and 115060, 131050, 131051 and 131052,~~ Health and Safety Code.

Amend Section 30336.5 to read as follows:

**§ 30336.5. Requirements for Radiation Machine ~~Radiographer's~~ Radiographers'  
Assistants.**

*No Change to Text.*

Note: Authority cited: Sections 114975, 115000, ~~115060, 131050, 131051~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, ~~and 115060, 131050, 131051 and 131052,~~ Health and Safety Code.

**Group 3. Standards for Protection Against Radiation**  
**Article 7. Radiation Safety Requirements for Well Logging Operations**

Amend Section 30346 to read as follows:

**§ 30346. Agreement with Well Owner or Operator.**

(a) No licensee shall perform well logging services operations with a sealed source unless, prior to commencement of the operation, the licensee has a written agreement with the well operator, well-owner, drilling contractor, or land owner describing who shall be responsible for meeting the following requirements:

(1) In the event a sealed source is lodged downhole, a reasonable effort shall be made to recover it.

(2) A person ~~may~~ shall not attempt to recover a sealed source in a manner which, in the licensee's opinion, could result in its rupture.

(3) Radiation monitoring required in ~~section~~Section 30348.5(a) shall be performed.

(4) If the environment, any equipment, or any personnel are contaminated with licensed radioactive material, they shall be decontaminated before release from the site or release for unrestricted use, as applicable.

(5) If the sealed source is classified as irretrievable after reasonable efforts at recovery have been expended, the following requirements shall be implemented within 30 days:

(A) Each irretrievable well logging source shall be immobilized and sealed in place with a cement plug.

(B) A ~~means~~mechanical device to prevent inadvertent intrusion on the source shall be set at some point in the well above the cement plug, unless the cement plug and source ~~is~~are not accessible to any subsequent drilling operations.

(C) A permanent identification plaque, constructed of long lasting material such as stainless steel, brass, bronze, or monel, shall be mounted at the surface of the well, unless the mounting of the plaque is not practical. The size of the plaque shall be at

least 7 inches square and 1/8 inch thick. The plaque shall contain the word "Caution", the radiation symbol (color requirements as described in section 20.1901(a) of title 10, Code of Federal Regulations, Part 20, incorporated by reference in section 30253, need not~~Section 30278(a) do not have to be met~~), the date the source was abandoned, the name of the well owner or well operator as appropriate, the well name and well identification number(s) or other designations, an identification of the sealed source(s) by radionuclide and quantity, the depth of the source and the depth to the top of the plug, and an appropriate warning such as "Do not reenter this well".

(b) The licensee shall retain a copy of the written agreement for three years after the completion of the well logging operation.

(c) A licensee may apply, pursuant to section~~Section~~ 30104, for approval on a case-by-case basis of proposed procedures to abandon an irretrievable well logging source in a manner not otherwise authorized in subsection~~paragraph~~ (a)(5) above.

(d) A written agreement between the licensee and the well owner or operator is not required if the licensee and the well owner or operator are part of the same corporate structure or otherwise similarly affiliated. However, the licensee shall still otherwise meet the requirements in subsection~~Sections~~ (a)(1) through (a)(5).

~~Note: Authority cited: Sections 208 and 25811, Health and Safety Code. Reference: Sections 25801, 25802, 25815, 25875 and 25876, Health and Safety Code.~~

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115060, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.



## **Article 7. Radiation Safety Requirements for Well Logging Operations**

Amend Section 30346.2 to read as follows:

### **§ 30346.2. Radiation Detection Instruments.**

(a) The licensee or registrant shall keep a calibrated and operable radiation survey instrument capable of detecting beta and gamma radiation at each field station and temporary jobsite to make the radiation surveys required by this ~~Article~~section and by ~~section~~Section 30275. To satisfy this requirement, the radiation survey instrument must be capable of measuring 0.1 mR per hour through at least 50 mR per hour. ~~Survey instruments acquired before the effective date of these regulations shall be capable of measuring 0.1 mR per hour through at least 20 mR per hour.~~

(b) through (d) *No Change to Text.*

~~Note: Authority cited: Sections 208 and 25811, Health and Safety Code. Reference: Sections 25801, 25802, 25815, 25875 and 25876, Health and Safety Code.~~

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115060, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.

Amend Section 30348.1 to read as follows:

**§ 30348.1. Training Requirements.**

(a) The licensee or registrant shall not permit an individual to act as a logging supervisor until that person:

(1) Has completed training in the subjects outlined in subsection (e) ~~of this section~~;

(2) Has received copies of, and instruction in:

(A) Regulations contained in this s~~Subchapter 4, Title 17, California Code of Regulations~~;

(B) The Department license or registration under which the logging supervisor will perform well logging; and

(C) The licensee or registrant's operating and emergency procedures required by section~~Section~~ 30348.2;

(3) Has completed on-the-job training and demonstrated competence in the use of radiation sources, remote handling tools, and radiation survey instruments by a field evaluation; and

(4) Has demonstrated an understanding of the requirements in paragraphs ~~(a)~~(1) and (2) ~~of this section~~ by successfully completing a written test.

(b) The licensee or registrant shall not permit an individual to act as a logging assistant until that person:

(1) Has received instruction in applicable requirements of the United States, title 10, Code of Federal Regulations, ~~p~~Part 20, subparts C, D, F, G, I, J, K, L, and M, as incorporated by reference in section 30253;

(2) Has received copies of, and instruction in, the licensee's or registrant's operating and emergency procedures required by section~~Section~~ 30365-230348.2;

(3) Has demonstrated an understanding of the materials listed in paragraphs ~~(b)~~(1) and (2) ~~of this section~~ by successfully completing a written or oral test; and

(4) Has received instruction in the use of radiation sources, remote handling tools, and radiation survey instruments, as appropriate for the logging assistant's intended job responsibilities.

(c) *No change to text.*

(d) *No change to text.*

(e) The licensee or registrant shall include the following subjects in the training required in ~~subsection~~ paragraph (a)(1) of this section:

(1) through (5) *No change to text.*

~~Note: Authority cited: Sections 208 and 25811, Health and Safety Code. Reference: Sections 25801, 25802, 25815, 25875 and 25876, Health and Safety Code.~~

Note: Authority cited: Sections 114975, 115000 and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115060, 115230, 115235, 131050, 131051 and 131052, Health and Safety Code.

Amend Section 30350 to read as follows:

**§ 30350. Security.**

(a) A logging supervisor shall be physically present at a temporary jobsite whenever radioactive materials or particle accelerators are being handled or are not stored and locked in a vehicle or storage place. The logging supervisor may leave the jobsite in order to obtain assistance if a source becomes lodged in a well.

(b) During well logging, except when radiation sources are below ground or in shipping or storage containers, the logging supervisor or other individual designated by the logging supervisor shall maintain direct surveillance of the operation to prevent unauthorized entry into a “~~controlled~~restricted area,” as defined in title 10, Code of Federal Regulations, section 20.1003, as incorporated by reference by section 30253.

Note: Authority cited: Sections ~~100275 and 114975~~, 115000, and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115060, 115230, ~~and 115235~~, 131050, 131051 and 131052, Health and Safety Code.