

**Title 17, California Code of Regulations
Division 1, Chapter 5, Subchapter 4.0
Group 2. Licensing of Radioactive Materials
Article 4. Licenses**

Amend Section 30195.1 to read as follows:

§ 30195.1. Special Requirements for Issuance of Specific Licenses-Financial Surety for Decommissioning.

~~(a) The regulations governing financial assurance for decommissioning in Title 10, Code of Federal Regulations (10 CFR), section 30.35 (January 1, 2007) and Appendices A through E of 10 CFR Part 30 referenced in section 30.35, are hereby incorporated by reference with the following exceptions:~~

~~(1) Subsection 30.35(g) is not incorporated by reference.~~

~~(2) The phrase "byproduct material" shall include all "radioactive material" as defined in Title 17, California Code of Regulations, section 30100, except source material which shall be governed by subsection (b).~~

~~(3) The date "January 1, 1996" is substituted for the date "July 27, 1990."~~

~~(4) Any reference to the United States Nuclear Regulatory Commission (NRC) or any component thereof shall be deemed to be a reference to the Department.~~

~~(5) Any reference to 10 CFR section 30.37 shall be deemed to be a reference to Section 30194.~~

~~(6) The date "January 1, 1998" is substituted for the date "November 24, 1995."~~

~~(7) The date "January 1, 2010" is substituted for the date "December 2, 2004."~~

~~(8) The date "July 1, 2010" is substituted for the date "June 2, 2005."~~

~~(9) The date "January 1, 2011" is substituted for the date "December 2, 2005."~~

~~(10) The reference to 10 CFR section 20.303 found in the Note of Appendix B of 10 CFR Part 30 shall be deemed a reference to 10 CFR section 20.2003.~~

~~(11) Provisions relating only to power reactor licensees found in the following appendices are not incorporated:~~

~~(A) Appendix A, II.A.1.(ii);~~

~~(B) Appendix A, II.A.1.(iv);~~

~~(C) Appendix A, II.A.2.(ii);~~

~~(D) Appendix A, II.A.2.(iv);~~

~~(E) Appendix C, II.A(1); and~~

~~(F) Appendix C, II.A(2).~~

~~(b) The regulations governing financial assurance for decommissioning in 10 CFR section 40.36 (January 1, 2007) are hereby incorporated by reference with the following exceptions:~~

~~(1) Subsection 40.36(f) is not incorporated by reference.~~

~~(2) The date "January 1, 1996" is substituted for the date "July 27, 1990."~~

~~(3) Any reference to the NRC or any component thereof shall be deemed to be a reference to the Department.~~

~~(4) Any reference to 10 CFR section 40.43 shall be deemed to be a reference to Section 30194.~~

~~(5) The date "January 1, 1998" is substituted for the date "November 24, 1995."~~

~~(6) The date "January 1, 2009" is substituted for the date "December 2, 2004."~~

~~(7) The date "July 1, 2009" is substituted for the date "June 2, 2005."~~

~~(8) Appendix A referenced in section 40.36 is not incorporated by reference.~~

(a) Except as provided in subsection (b), each applicant for, or holder of, a specific license authorizing the possession and use of radioactive material shall provide for financial surety in accordance with sections 30197 through 30197.7. Licensees in compliance with this section prior to [effective date of regulation to be inserted by Office of Administrative Law] need not reestablish financial surety but shall be subject to this section on and after that date.

~~(e)~~ The following persons shall be exempt from the requirements of this section:

(1) Persons authorized to possess no more than 1,000 times the applicable quantity specified for each licensed material specified in Appendix B to Part 30 of Title 10, Code of Federal Regulations in section 30197.7;

(2) Persons authorized to possess hydrogen-3 contained in hydrogen gas in a sealed source;

(3) Persons authorized to possess radioactive noble gases in sealed sources with no radioactive daughter product with half-life greater than 30 days; or

(4) Persons authorized to possess no more than 10 mCi of source material in any form and source material in any quantity in a non-dispersible form.

Note: Authority cited: Sections 115000, 115091, ~~131055~~ and 131200, Health and Safety Code. Reference: Sections 114965, 114970, 115060, 115091, 115092, ~~and 115235, 131050, 131051 and 131052,~~ Health and Safety Code.

Adopt Section 30197 to read as follows:

§ 30197. Financial Surety for Decommissioning Except as Provided for in Sections 30197.1 and 30197.2.

(a) Except as specified in subsection (i), the following persons shall submit to the Department a decommissioning funding plan (DFP) as described in subsection (e):

(1) Each applicant for a specific license authorizing the possession and use of unsealed radioactive material of half-life greater than 120 days and in quantities exceeding 10^5 times the applicable quantities specified in section 30197.7. A DFP shall also be submitted when a combination of isotopes is involved if R divided by 10^5 is greater than 1 (unity rule), where R is defined here as the sum of the ratios of the quantity of each isotope to the applicable value in section 30197.7.

(2) Each holder of, or applicant for, any specific license authorizing the possession and use of sealed sources or plated foils of half-life greater than 120 days and in quantities exceeding 10^{12} times the applicable quantities specified in section 30197.7, or when a combination of isotopes is involved if R , as defined in paragraph (1), divided by 10^{12} is greater than 1.

(b) Except as specified in subsection (i), each applicant for a specific license authorizing possession and use of radioactive material of half-life greater than 120 days and in quantities specified in subsection (d) shall:

(1) Submit a DFP as described in subsection (e); or

(2) Submit a certification that financial surety for decommissioning has been provided in the amount prescribed by subsection (d), using one of the methods described in subsection (g). For an applicant, this certification may state that the appropriate surety will be obtained after the application has been approved and the license issued but before the receipt of licensed material. If the applicant defers execution of the financial instrument until after the license has been issued, a signed original of the financial instrument obtained to satisfy the requirements of subsection (g) must be submitted to the Department before receipt of licensed material. If the applicant does not defer execution of the financial instrument, the applicant shall submit

to the Department, as part of the certification, a signed original of the financial instrument obtained to satisfy the requirements of subsection (g).

(c) Except as specified in subsection (i), the following persons shall provide for financial surety as specified:

(1) Each holder of a specific license issued on or after January 1, 1996, which is of a type described in subsections (a) or (b), shall provide financial surety for decommissioning in accordance with the criteria set forth in this section.

(2) Each holder of a specific license issued before January 1, 1996, and of a type described in subsection (a) shall submit a DFP as described in subsection (e), or a certification of financial surety for decommissioning in an amount at least equal to \$1,125,000, in accordance with the criteria set forth in this section. If the licensee submits the certification of financial surety rather than a DFP, the licensee shall include a DFP in any application for license renewal.

(3) Each holder of a specific license issued before January 1, 1996, and of a type described in subsection (b) shall submit a DFP as described in subsection (e), or a certification of financial surety for decommissioning in accordance with the criteria set forth in this section.

(4) Waste collectors and waste processors, as defined in Appendix G of Title 10, Code of Federal Regulations, Part 20 (10 CFR 20), incorporated by reference in section 30253, shall provide financial surety in an amount based on a DFP as described in subsection (e). The DFP shall also include the cost of disposal of the maximum amount (in curies) of radioactive material permitted by the license, and the cost of disposal of the maximum quantity, by volume, of radioactive material which could be present at the licensee's facility at any time.

(5) If, in surveys made under 10 CFR 20.1501(a), incorporated by reference in section 30253, residual radioactivity in the facility and environment, including the subsurface, is detected at levels that would, if left uncorrected, prevent the site from being released in accordance with the licensee's specific license, the licensee shall submit a DFP meeting the criteria specified in subsection (e) within one year of when

the survey is completed. Nothing in this section may be construed to eliminate the need to comply with section 30256, to authorize the performance of actual decommissioning activities, or to establish radiological criteria for termination of a specific license.

(d) Table of required amounts of financial surety for decommissioning by quantity of material. Licensees having possession limits exceeding the upper bounds of this table must base financial surety on a DFP.

<u>Quantity of Material</u>	<u>Required Financial Surety Amount</u>
<u>Greater than 10^4 but less than or equal to 10^5 times the applicable quantities of section 30197.7 in unsealed form. (For a combination of isotopes, if R, as defined in subsection (a)(1), divided by 10^4 is greater than 1 but R divided by 10^5 is less than or equal to 1.)</u>	<u>\$1,125,000</u>
<u>Greater than 10^3 but less than or equal to 10^4 times the applicable quantities of section 30197.7 in unsealed form. (For a combination of isotopes, if R, as defined in subsection (a)(1), divided by 10^3 is greater than 1 but R divided by 10^4 is less than or equal to 1.)</u>	<u>\$ 225,000</u>
<u>Greater than 10^{10} but less than or equal to 10^{12} times the applicable quantities of section 30197.7 in sealed sources or plated foils. (For a combination of isotopes, if R, as defined in subsection (a)(1), divided by 10^{10} is greater than, 1, but R divided by 10^{12} is less than or equal to 1.)</u>	<u>\$ 113,000</u>

(e) If required to submit a DFP for review and approval, the DFP shall contain:
(1) A detailed decommissioning cost estimate (DCE), in an amount reflecting:
(A) The cost of an independent contractor to perform all decommissioning activities;

(B) The cost of removing residual radioactivity to the level identified in the application material submitted pursuant to section 30194 or in the licensee's specific license. Nothing in this section or sections 30197.1 and 30197.2 may be construed to eliminate the need to comply with section 30256, to authorize the performance of actual decommissioning activities, or to establish radiological criteria for termination of a specific license.

(C) The volume of onsite subsurface material containing residual radioactivity that will require remediation to attain levels identified in application material submitted pursuant to section 30194 or in the licensee's specific license; and

(D) A contingency factor of at least 25 percent of the total DCE;

(2) Identification of and justification for using the key assumptions contained in the DCE;

(3) A description of the method of assuring funds for decommissioning, from alternatives listed in subsection (g), including means for adjusting cost estimates and associated funding levels periodically over the life of the facility;

(4) A certification by the licensee that financial surety for decommissioning has been provided in the amount of the cost estimate for decommissioning; and

(5) A signed original of the financial instrument obtained to satisfy the requirements of subsection (g), unless a previously submitted and accepted financial instrument continues to cover the cost estimate for decommissioning.

(f) At the time of license renewal and at intervals not to exceed three years, the licensee shall resubmit the DFP, described in subsection (e), with adjustments as necessary to account for changes in costs and in the extent of any contamination. If the amount of financial surety will be adjusted downward, that adjustment may not be made until the updated DFP is approved. The resubmitted DFP shall have been updated as compared to the information submitted with the original or prior approved plan, and shall specifically consider the effect of the following events on decommissioning costs:

(1) Spills of radioactive material producing additional residual radioactivity in onsite subsurface material;

- (2) Waste inventory increasing above the amount previously estimated;
- (3) Waste disposal costs increasing above the amount previously estimated;
- (4) Facility modifications;
- (5) Changes in authorized possession limits;
- (6) Actual remediation costs that exceed the previous cost estimate;
- (7) Onsite disposal; and
- (8) Use of a settling pond.

(g) Financial surety for decommissioning shall be provided by one or more of the methods listed at paragraphs (1) through (5), below. The financial instrument shall include the licensee's name and address as specified on the license, license number, dollar amount of the instrument, expiration date, and account or bond number issued by the issuer, and the name, address, and other contact information of the issuer, and, if a trust is used, the trustee. When any of the foregoing information changes, the licensee shall within 30 days submit financial instruments reflecting such changes. The financial instrument submitted shall be a signed original or signed original duplicate.

(1) *Prepayment.* Prepayment is the deposit prior to the start of operation, into an account segregated from licensee assets and outside the licensee's administrative control, of cash or liquid assets such that the amount of funds would be sufficient to pay decommissioning costs. Prepayment shall be in the form of a trust or certificate of deposit.

(2) *A surety method, insurance, or other guarantee method.* These methods guarantee that decommissioning costs will be paid. A surety method may be in the form of a surety bond, or letter of credit. A parent company guarantee of funds for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in section 30197.3. A parent company guarantee may not be used in combination with other financial methods to satisfy the requirements of this section. For commercial corporations that issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in section 30197.4. For commercial companies

that do not issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs may be used if the guarantee and test are as contained in section 30197.5. For nonprofit entities, such as colleges, universities, and nonprofit hospitals, a guarantee of funds by the applicant or licensee may be used if the guarantee and test are as contained in section 30197.6. Except for an external sinking fund, a guarantee by the applicant or licensee may not be used in combination with any other financial methods used to satisfy the requirements of this section. A guarantee by the applicant or licensee may not be used in any situation where the applicant or licensee has a parent company holding majority control of the voting stock of the company. Any surety method or insurance used to provide financial surety for decommissioning must contain the following conditions:

(A) The surety method or insurance must be open-ended or, if written for a specified term, such as five years, must be renewed automatically unless 90 days or more prior to the renewal date, the issuer notifies the Department, the beneficiary, and the licensee of its intention not to renew. The surety method or insurance must also provide that the full face amount be paid to the beneficiary automatically prior to the expiration without proof of forfeiture if the licensee fails to provide a replacement acceptable to the Department within 30 days after receipt of notification of cancellation.

(B) The surety method or insurance must be payable to a trust established for decommissioning costs or to the Financial Surety Account within the Radiation Control Fund, administered by the Department pursuant to Health and Safety Code Section 115092. The trustee and trust must be acceptable to the Department. An acceptable trustee includes an appropriate State or Federal government agency, or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(C) The surety method or insurance must remain in effect until the Department has terminated the license.

(3) *An external sinking fund in which deposits are made at least annually, coupled with a surety method or insurance, or other guarantee method, the value of*

which may decrease by the amount being accumulated in the sinking fund. An external sinking fund is a fund established and maintained by setting aside funds periodically in an account segregated from licensee assets and outside the licensee's administrative control, in which the total amount of funds would be sufficient to pay decommissioning costs at the time termination of operation is expected. An external sinking fund must be in the form of a trust. If the other guarantee method is used, no surety or insurance may be combined with the external sinking fund. The surety, insurance or other guarantee provisions must be as stated in paragraph (2).

(4) In the case of State or local government licensees, a statement of intent containing a cost estimate for decommissioning or an amount based on the table in subsection (d), and indicating that funds for decommissioning will be obtained when necessary.

(5) When a government entity is assuming custody and ownership of a site, an arrangement that is deemed acceptable by such government entity.

(h) Licensees shall maintain records as described and in accordance with section 30256(a).

(i) This section shall not apply to source material as specified in section 30197.1 or special nuclear material as specified in section 30197.2.

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

Adopt Section 30197.1 to read as follows:

§ 30197.1. Financial Surety for Decommissioning – Source material.

(a) Each applicant for a specific license authorizing the possession and use of more than 100 millicuries (mCi) of source material, as defined in section 114985(e) of the Health and Safety Code, in a readily dispersible form, shall submit a decommissioning funding plan (DFP) as described in section 30197(e). The applicant, upon becoming a licensee, shall be subject to section 30197(f) in addition to this section.

(b) Each applicant for a specific license authorizing possession and use of quantities of source material greater than 10 mCi but less than or equal to 100 mCi in a readily dispersible form shall either:

(1) Submit a DFP as described in section 30197(e). The applicant, upon becoming a licensee, shall be subject to section 30197(f) in addition to this section; or

(2) Submit a certification that financial surety for decommissioning has been provided in the amount of \$225,000 using one of the methods described in section 30197(g). For an applicant, this certification may state that the appropriate surety will be obtained after the application has been approved and the license issued but before the receipt of licensed material. If the applicant defers execution of the financial instrument until after the license has been issued, a signed original of the financial instrument obtained to satisfy the requirements of section 30197(g) shall be submitted to the Department prior to receipt of licensed material. If the applicant does not defer execution of the financial instrument, the applicant shall submit to the Department, as part of the certification, a signed original of the financial instrument obtained to satisfy the requirements of section 30197(g). The applicant, upon becoming a licensee, shall be subject to section 30197(f) in addition to this section.

(c) The following persons shall provide for financial surety as specified:

(1) Each holder of a specific license issued on or after January 1, 1996, which is of a type described in subsection (a) or (b), shall provide financial surety for

decommissioning in accordance with the criteria set forth in this section and be subject to section 30197(f), as applicable.

(2) Each holder of a specific license issued before January 1, 1996, and of a type described in subsection (a) shall submit a DFP as described in section 30197(e) or a certification of financial surety for decommissioning in an amount at least equal to \$1,125,000, in accordance with the criteria set forth in section 30197(g). If the licensee submits the certification of financial surety rather than a DFP, the licensee shall include a DFP in any application for license renewal. The licensee shall be subject to section 30197(f), as applicable.

(3) Each holder of a specific license issued before January 1, 1996, and of a type described in subsection (b) shall submit a DFP, as described in section 30197(e), or a certification of financial surety for decommissioning in accordance with the criteria set forth in section 30197(g). The licensee shall be subject to section 30197(f), as applicable.

(4) If, in surveys made under 10 CFR 20.1501(a), incorporated by reference in section 30253, residual radioactivity in the facility and environment, including the subsurface, is detected at levels that would, if left uncorrected, prevent the site from being released in accordance with the licensee's specific license, the licensee shall submit a DFP meeting the criteria specified in section 30197(e) within one year of when the survey is completed. Nothing in this section may be construed to eliminate the need to comply with section 30256, to authorize the performance of actual decommissioning activities, or to establish radiological criteria for termination of a specific license.

(d) Licensees shall maintain records as described and in accordance with section 30256(a).

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

Adopt Section 30197.2 to read as follows:

Section 30197.2. Financial Surety for Decommissioning – Unsealed Special Nuclear Material.

(a) Each holder of, or applicant for, a specific license authorizing the possession and use of unsealed special nuclear material, as defined in section 114985(f) of the Health and Safety Code, in quantities exceeding 10^5 times the applicable quantities specified in section 30197.7, shall submit a decommissioning funding plan (DFP) as described in section 30197(e). The applicant, upon becoming a licensee, shall be subject to section 30197(f) in addition to this section. The DFP shall also be submitted when a combination of isotopes is involved if R divided by 10^5 is greater than 1 (unity rule), where R is defined here as the sum of the ratios of the quantity of each isotope to the applicable value in section 30197.7.

(b) Each applicant for a specific license authorizing possession and use of unsealed special nuclear material and in quantities specified in subsection (d) shall:

(1) Submit a DFP as described in section 30197(e). The applicant, upon becoming a licensee, shall be subject to section 30197(f) in addition to this section; or

(2) Submit a certification that financial surety for decommissioning has been provided in the amount prescribed by subsection (d), using one of the methods described in section 30197(g). For an applicant, this certification may state that the appropriate surety will be obtained after the application has been approved and the license issued but before the receipt of licensed material. If the applicant defers execution of the financial instrument until after the license has been issued, a signed original of the financial instrument obtained to satisfy the requirements of section 30197(g) must be submitted to the Department before receipt of licensed material. If the applicant does not defer execution of the financial instrument, the applicant shall submit to the Department, as part of the certification, a signed original of the financial instrument obtained to satisfy the requirements of section 30197(g). The applicant, upon becoming a licensee, shall be subject to section 30197(f) in addition to this section.

(c) The following persons shall provide for financial surety as specified:

(1) Each holder of a specific license issued on or after January 1, 1996, which is of a type described in subsection (a) or (b), shall provide financial surety for decommissioning in accordance with the criteria set forth in this section. The licensee shall be subject to section 30197(f), as applicable.

(2) Each holder of a specific license issued before January 1, 1996, and of a type described in subsection (a), shall submit a decommissioning funding plan as described in section 30197(e), or a certification of financial surety for decommissioning in an amount at least equal to \$1,125,000 in accordance with the criteria set forth in section 30197(g). If the licensee submits the certification of financial surety rather than a DFP, the licensee shall include a DFP, as described in section 30197(e), in any application for license renewal. The licensee shall be subject to section 30197(f), as applicable.

(3) Each holder of a specific license issued before January 1, 1996, and of a type described in subsection (b), shall submit a DFP, as described in section 30197(e), or a certification of financial surety for decommissioning in accordance with the criteria set forth in section 30197(g). The licensee shall be subject to section 30197(f), as applicable.

(4) If, in surveys made under 10 CFR 20.1501(a), incorporated by reference in section 30253, residual radioactivity in the facility and environment, including the subsurface, is detected at levels that would, if left uncorrected, prevent the site from being released in accordance with the licensee's specific license, the licensee shall submit a DFP meeting the criteria specified in section 30197(e) within one year of when the survey is completed. Nothing in this section may be construed to eliminate the need to comply with section 30256, to authorize the performance of actual decommissioning activities, or to establish radiological criteria for termination of a specific license.

(d) Table of required amounts of financial surety for decommissioning by quantity of material: Licensees having possession limits exceeding the upper bounds of this table must base financial surety on a DFP.

<u>Quantity of Unsealed Special Nuclear Material</u>	<u>Required Financial Surety Amount</u>
<u>Greater than 10⁴ but less than or equal to 10⁵ times the applicable quantities of section 30197.7. (For a combination of isotopes, if R, as defined in subsection (a), divided by 10⁴ is greater than 1 but R divided by 10⁵ is less than or equal to 1.)</u>	<u>\$1,125,000</u>
<u>Greater than 10³ but less than or equal to 10⁴ times the applicable quantities of section 30197.7. (For a combination of isotopes, if R, as defined in subsection (a), divided by 10³ is greater than 1 but R divided by 10⁴ is less than or equal to 1.)</u>	<u>\$225,000</u>

(e) Licensees shall maintain records as described and in accordance with section 30256(a).

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

Adopt Section 30197.3 to read as follows:

Section 30197.3. Criteria Relating to Use of Financial Tests and Parent Company Guarantees for Providing Reasonable Surety of Funds for Decommissioning.

(a) An applicant or licensee may provide reasonable assurance of the availability of funds for decommissioning, based on obtaining a parent company guarantee that funds will be available for decommissioning costs, by demonstrating that the parent company passes the financial test specified in subsection (b), and provided the parent company guarantee contains the terms specified in subsection (e).

(b) To pass the financial test, the parent company shall meet either of the following criteria. For purposes of applying the criteria, tangible net worth must be calculated to exclude all intangible assets and the net book value of the nuclear facility and site, and total net worth, which may include intangible assets, must be calculated to exclude the net book value and goodwill of the nuclear facility and site:

(1) The parent company shall have:

(A) Two of the following three ratios: A ratio of total liabilities to total net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the current decommissioning cost estimates for the total of all facilities or parts thereof (or prescribed amount if a certification is used); and

(C) Tangible net worth of at least \$21 million; and

(D) Assets located in the United States amounting to at least 90 percent of the total assets or at least six times the current decommissioning cost estimates for the total of all facilities or parts thereof (or prescribed amount if a certification is used); or

(2) The parent company shall have:

(A) A current rating for its most recent uninsured, uncollateralized, and unencumbered bond issuance of AAA, AA, A, or BBB (including adjustments of + and -)

as issued by Standard and Poor's or Aaa, Aa, A, or Baa (including adjustment of 1, 2, or 3) as issued by Moody's; and

(B) Tangible net worth each at least six times the current decommissioning cost estimates for the total of all facilities or parts thereof (or prescribed amount if a certification is used); and

(C) Tangible net worth of at least \$21 million; and

(D) Assets located in the United States amounting to at least 90 percent of the total assets or at least six times the current decommissioning cost estimates for the total of all facilities or parts thereof (or prescribed amount if a certification is used); and

(c) The parent company's independent certified public accountant shall have compared the data used by the parent company in the financial test, which is derived from the independently audited, year-end financial statements for the latest fiscal year, with the amounts in such financial statement. The accountant must evaluate the parent company's off-balance sheet transactions and provide an opinion on whether those transactions could materially adversely affect the parent company's ability to pay for decommissioning costs. The accountant must verify that a bond rating, if used to demonstrate passage of the financial test, meets the requirements of subsection (b). In connection with that procedure, the licensee shall inform the Department within 90 days of any matters coming to the auditor's attention which cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test.

(d) After the initial financial test, the parent company shall annually repeat the passage of the test, and provide documentation of its continued eligibility to use the parent company guarantee to the Department within 90 days after the close of each succeeding fiscal year. If the parent company no longer meets the requirements of subsection (b), the licensee shall send notice to the Department of intent to establish an alternate financial surety as specified in section 30195.1. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the parent company no longer meets the financial test

requirements. The licensee shall provide an alternate financial surety within 120 days after the end of such fiscal year.

(e) The terms of a parent company guarantee which an applicant or licensee obtains shall provide that:

(1) The parent company guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the licensee and the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the licensee and the Department, as evidenced by the return receipts.

(2) If the licensee fails to provide an alternate financial surety as specified in section 30195.1 within 90 days after receipt by the licensee and the Department of a notice of cancellation of the parent company guarantee from the guarantor, the guarantor will provide such alternative financial surety that meets the requirements of section 30195.1 in the name of the licensee.

(3) The parent company guarantee and financial test provisions shall remain in effect until the Department has terminated the license, accepted in writing the parent company's alternate financial surety, or accepted in writing the licensee's financial surety.

(4) A standby trust to protect public health and safety and the environment must be established for decommissioning costs before the parent company guarantee agreement is submitted. If a trust is established for decommissioning costs, the trustee and trust shall be acceptable to the Department. An acceptable trustee includes an appropriate State or Federal Government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency. The Department has the right to change the trustee. An acceptable trust will meet the regulatory criteria established in this section that govern the issuance of the license for which the guarantor has accepted the obligation to pay for decommissioning costs.

(5) The guarantor must agree that it would be subject to Department orders to make payments under the guarantee agreement.

(6) The guarantor must agree that if the guarantor admits in writing its inability to pay its debts generally, or makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against the guarantor seeking to adjudicate it as bankrupt or insolvent, or seeking dissolution, liquidation, winding-up, reorganization, arrangement, adjustment, protection, relief or composition of it or its debts under any law relating to bankruptcy, insolvency, or reorganization or relief of debtors, or seeking the entry of an order for relief or the appointment of a receiver, trustee, custodian, or other similar official for the guarantor or for any substantial part of its property, or the guarantor takes any action to authorize or effect any of the actions stated in this paragraph, then the Department may:

(A) Declare that the financial surety guaranteed by the parent company guarantee agreement is immediately due and payable to the standby trust or to the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092, set up to protect the public health and safety and the environment, without diligence, presentment, demand, protest or any other notice of any kind, all of which are expressly waived by guarantor; and

(B) Exercise any and all of its other rights under applicable law.

(7) The guarantor must agree to notify the Department, in writing as specified in subsection (f), immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code, or the occurrence of any other event listed in paragraph (6), by or against:

(A) The guarantor;

(B) The licensee;

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

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

(f) The notification required pursuant to subsection (e)(7) shall include:

(1) A description of the event, including major creditors, the amounts involved, and the actions taken to assure that the amount of funds guaranteed by the parent company guarantee for decommissioning will be transferred as soon as possible to the standby trust or to the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092;

(2) If a petition of bankruptcy was filed, the identity of the bankruptcy court in which the petition for bankruptcy was filed; and

(3) The date of filing of any petitions.

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

Adopt Section 30197.4 to read as follows:

Section 30197.4. Criteria Relating to Use of Financial Tests and Self Guarantees for Providing Reasonable Surety of Funds for Decommissioning.

(a) An applicant or licensee may provide reasonable assurance of the availability of funds for decommissioning based on furnishing its own guarantee that funds will be available for decommissioning costs by demonstrating the company passes the financial test specified in subsection (b), and provided its self-guarantee contains the terms specified in subsection (e).

(b) To pass the financial test, a company shall meet all of the following. For purposes of applying the criteria, tangible net worth must be calculated to exclude all intangible assets and the net book value of the nuclear facility and site, and total net worth, which may include intangible assets, must be calculated to exclude the net book value and goodwill of the nuclear facility and site:

(1) Tangible net worth of at least \$21 million, and total net worth at least 10 times the amount of decommissioning funds being assured by a self-guarantee for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor for the total of all nuclear facilities or parts thereof (or the prescribed amount if certification is used).

(2) Assets located in the United States amounting to at least 90 percent of total assets or at least 10 times the the amount of decommissioning funds being assured by a self-guarantee, for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor for the total of all facilities or parts thereof (or the prescribed amount if certification is used).

(3) A current rating for its most recent uninsured, uncollateralized, and unencumbered bond issuance of AAA, AA, or A (including adjustments of + and -) as issued by Standard and Poor's, or Aaa, Aa, or A (including adjustments of 1, 2, or 3) as issued by Moody's.

(4) Have at least one class of equity securities registered under the Securities Exchange Act of 1934.

(c) The company's independent certified public accountant shall have compared the data used by the company in the financial test which is derived from the independently audited, year-end financial statements for the latest fiscal year, with the amounts in such financial statement. The accountant must evaluate the company's off-balance sheet transactions and provide an opinion on whether those transactions could materially adversely affect the company's ability to pay for decommissioning costs. The accountant must verify that a bond rating, if used to demonstrate passage of the financial test, meets the requirements of subsections (b)(1) through (b)(3). In connection with that procedure, the licensee shall inform the Department within 90 days of any matters coming to the attention of the auditor that cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test.

(d) After the initial financial test, the company must annually pass the tests specified in subsection (b), and provide documentation of its continued eligibility to use the self-guarantee to the Department within 90 days after the close of each succeeding fiscal year. If the licensee no longer meets the requirements of subsections (b)(1) through (b)(3), the licensee shall send immediate notice to the Department of its intent to establish an alternate financial surety as specified in section 30195.1 within 120 days of such notice.

(e) The terms of a self-guarantee which an applicant or licensee furnishes shall provide that:

(1) The guarantee will remain in force unless the licensee sends notice of cancellation by certified mail to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by the Department, as evidenced by the return receipt.

(2) The licensee shall provide an alternative financial surety as specified in the section 30195.1 within 90 days following receipt by the Department of a notice of cancellation of the guarantee.

(3) The guarantee and financial test provisions must remain in effect until the Department has terminated the license or until another financial surety method acceptable to the Department has been put in effect by the licensee.

(4) The licensee will promptly forward to the Department and the licensee's independent auditor all reports covering the latest fiscal year filed by the licensee with the Securities and Exchange Commission pursuant to the requirements of section 13 of the Securities and Exchange Act of 1934.

(5) If, at any time, the licensee's most recent bond issuance ceases to be rated in any category of "A-" and above by S&P or in any category of "A3" and above by Moody's, the licensee will provide notice in writing of such fact to the Department within 20 days after publication of the change by the rating service. If the licensee's most recent bond issuance ceases to be rated in any category of A or above by both S&P and Moody's, the licensee no longer meets the requirements of subsections (b)(1) through (b)(3).

(6) The applicant or licensee shall provide to the Department a written guarantee (a written commitment by a corporate officer) which states that the licensee will fund and carry out the required decommissioning activities or, upon issuance of an order by the Department, the licensee will fund the standby trust or the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092, in the amount guaranteed by the self-guarantee agreement.

(7) A standby trust, or a deposit into the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092, must be established for decommissioning costs before the self-guarantee agreement is submitted. The trustee and trust must be acceptable to the Department. An acceptable trustee includes an appropriate State or Federal Government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency. The Department has the right to change the trustee. An acceptable trust will meet the

regulatory criteria established in this section that govern the issuance of the license for which the guarantor has accepted the obligation to pay for decommissioning costs.

(8) The guarantor must agree that if the guarantor admits in writing its inability to pay its debts generally, or makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against the guarantor seeking to adjudicate it as bankrupt or insolvent, or seeking dissolution, liquidation, winding-up, reorganization, arrangement, adjustment, protection, relief or composition of it or its debts under any law relating to bankruptcy, insolvency, or reorganization or relief of debtors, or seeking the entry of an order for relief or the appointment of a receiver, trustee, custodian, or other similar official for the guarantor or for any substantial part of its property, or the guarantor takes any action to authorize or effect any of the actions stated in this paragraph, then the Department may:

(A) Declare that the financial surety guaranteed by the self-guarantee agreement is immediately due and payable to the standby trust or to the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092, without prior demand or other notice of any kind, both of which are expressly waived by guarantor; and

(B) Exercise any and all of its other rights under applicable law.

(9) The guarantor must notify the Department, in writing, immediately following the occurrence of any event listed in paragraph (8), and must include a description of the event, including major creditors, the amounts involved, and the actions taken to assure that the amount of funds guaranteed by the self-guarantee agreement for decommissioning will be transferred as soon as possible to the standby trust or to the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092.

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

Adopt Section 30197.5 to read as follows:

Section 30197.5. Criteria Relating to Use of Financial Tests and Self-Guarantee for Providing Reasonable Surety of Funds for Decommissioning by Commercial Companies That Have No Outstanding Rated Bonds.

(a) An applicant or licensee may provide reasonable assurance of the availability of funds for decommissioning based on furnishing its own guarantee that funds will be available for decommissioning costs by demonstrating the company passes the financial test specified in subsection (b), and provided the self-guarantee contains the terms specified in subsection (e).

(b) To pass the financial test, a company shall meet all of the following. For purposes of applying the criteria, tangible net worth must be calculated to exclude all intangible assets and the net book value of the nuclear facility and site, and total net worth, which may include intangible assets, must be calculated to exclude the net book value and goodwill of the nuclear facility and site:

(1) Tangible net worth of at least \$21 million, and total net worth of at least 10 times the amount of decommissioning funds being assured by a self-guarantee for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor for the total of all nuclear facilities or parts thereof (or the prescribed amount if certification is used);

(2) Assets located in the United States amounting to at least 90 percent of total assets or at least 10 times the total current decommissioning cost estimate (or the prescribed amount if certification is used) for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor; and

(3) A ratio of cash flow divided by total liabilities greater than 0.15 and a ratio of total liabilities divided by total net worth less than 1.5.

(c) The company's independent certified public accountant must have compared the data used by the company in the financial test, which is required to be derived from the independently audited year-end financial statement based on United States generally accepted accounting practices for the latest fiscal year, with the amounts in

such financial statement. The accountant must evaluate the company's off-balance sheet transactions and provide an opinion on whether those transactions could materially adversely affect the company's ability to pay for decommissioning costs. In connection with the auditing procedure, the licensee must inform the Department within 90 days of any matters coming to the auditor's attention which cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test.

(d) After the initial financial test, the company must annually pass the tests specified in subsection (b) and provide documentation of its continued eligibility to use the self-guarantee to the Department within 90 days after the close of each succeeding fiscal year. If the licensee no longer meets the requirements of subsection (b), the licensee shall send notice to the Department of intent to establish an alternative financial surety as specified in section 30195.1. The notice shall be sent by certified mail, return receipt requested, within 90 days after the end of the fiscal year for which the year-end financial data show that the licensee no longer meets the financial test requirements. The licensee shall provide an alternative financial surety within 120 days after the end of such fiscal year.

(e) The terms of a self-guarantee which an applicant or licensee furnishes shall provide that:

(1) The guarantee shall remain in force unless the licensee sends notice of cancellation by certified mail, return receipt requested, to the Department. Cancellation may not occur until an alternative financial surety is in place;

(2) The licensee shall provide an alternative financial surety as specified in the regulations within 90 days following receipt by the Department of a notice of cancellation of the guarantee;

(3) The guarantee and financial test provisions shall remain in effect until the Department has terminated the license or until another financial surety acceptable to the Department has been put in effect by the licensee; and

(4) The applicant or licensee shall provide to the Department a written guarantee (a written commitment by a corporate officer) which states that the licensee will fund and carry out the required decommissioning activities or, upon issuance of an order by the Department, the licensee will fund the standby trust or the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092 in the amount of the current cost estimates for decommissioning.

(5) A standby trust or the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092 must be established for decommissioning costs before the self-guarantee agreement is submitted. The trustee and trust must be acceptable to the Department. An acceptable trustee includes an appropriate State or Federal Government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency. The Department will have the right to change the trustee. An acceptable trust will meet the regulatory criteria established in this section that governs the issuance of the license for which the guarantor has accepted the obligation to pay for decommissioning costs.

(6) The guarantor must agree that if the guarantor admits in writing its inability to pay its debts generally, or makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against the guarantor seeking to adjudicate it as bankrupt or insolvent, or seeking dissolution, liquidation, winding-up, reorganization, arrangement, adjustment, protection, relief or composition of it or its debts under any law relating to bankruptcy, insolvency, or reorganization or relief of debtors, or seeking the entry of an order for relief or the appointment of a receiver, trustee, custodian, or other similar official for the guarantor or for any substantial part of its property, or the guarantor takes any action to authorize or effect any of the actions stated in this paragraph, then the Department may:

(A) Declare that the financial surety guaranteed by the self-guarantee agreement is immediately due and payable to the standby trust or to the Financial Surety Account

within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092, without prior demand or any other notice of any kind, both of which are expressly waived by guarantor; and

(B) Exercise any and all of its other rights under applicable law.

(7) The guarantor must notify the Department, in writing, immediately following the occurrence of any event listed in paragraph (6), and must include a description of the event, including major creditors, the amounts involved, and the actions taken to assure that the amount of funds guaranteed by the self-guarantee agreement for decommissioning will be transferred as soon as possible to the standby trust or to the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092.

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

Adopt Section 30197.6 to read as follows:

Section 30197.6. Criteria Relating to Use of Financial Tests and Self-Guarantee For Providing Reasonable Surety of Funds For Decommissioning by Nonprofit Colleges, Universities, and Hospitals.

(a) A nonprofit college, university or hospital applicant or licensee may provide reasonable surety of the availability of funds for decommissioning based on furnishing its own guarantee that funds will be available for decommissioning costs by demonstrating that the applicant or licensee passes the financial test specified in subsections (b) or (c), as applicable, and provided the self-guarantee containing terms specified in subsection (e).

(b) For colleges and universities, to pass the financial test a college or university shall meet one of the following:

(1) For applicants or licensees that issue bonds, a current rating for its most recent uninsured, uncollateralized, and unencumbered bond issuance of AAA, AA, or A (including adjustments of + or -) as issued by Standard and Poor's (S&P) or Aaa, Aa, or A (including adjustments of 1, 2, or 3) as issued by Moody's; or

(2) For applicants or licensees that do not issue bonds, unrestricted endowment consisting of assets located in the United States of at least \$50 million, or at least 30 times the total current decommissioning cost estimate (or the prescribed amount if certification is used), whichever is greater, for all decommissioning activities for which the college or university is responsible as a self-guaranteeing licensee.

(c) For hospitals, to pass the financial test a hospital shall meet one of the following:

(1) For applicants or licensees that issue bonds, a current rating for its most recent uninsured, uncollateralized, and unencumbered bond issuance of AAA, AA, or A as issued by S&P or Aaa, Aa, or A as issued by Moody's; or

(2) For applicants or licensees that do not issue bonds, all the following tests must be met:

(A) (Total Revenues less total expenditures) divided by total revenues must be equal to or greater than 0.04;

(B) Long term debt divided by net fixed assets must be less than or equal to 0.67;

(C) (Current assets and depreciation fund) divided by current liabilities must be greater than or equal to 2.55; and

(D) Operating revenues must be at least 100 times the total current decommissioning cost estimate (or the prescribed amount if certification is used) for all decommissioning activities for which the hospital is responsible as a self-guaranteeing license.

(d) The licensee's independent certified public accountant must have compared the data used by the licensee in the financial test, which is required to be derived from the independently audited year-end financial statements, based on United States generally accepted accounting practices, for the latest fiscal year, with the amounts in such financial statement. The accountant must evaluate the licensee's off-balance sheet transactions and provide an opinion on whether those transactions could materially adversely affect the licensee's ability to pay for decommissioning costs. The accountant must verify that a bond rating, if used to demonstrate passage of the financial test, meets the requirements in subsections (b) or (c). In connection with that procedure, the licensee shall inform the Department within 90 days of any matters coming to the attention of the auditor that cause the auditor to believe that the data specified in the financial test should be adjusted and that the licensee no longer passes the test.

(e) After the initial financial test, the licensee must annually pass the tests specified in subsections (b) or (c) and provide documentation of its continued eligibility to use the self-guarantee to the Department within 90 days after the close of each succeeding fiscal year. If the licensee no longer meets the requirements of subsection (b) or (c), as applicable, the licensee shall send notice to the Department of its intent to establish alternative financial surety as specified in Department regulations. The notice shall be sent by certified mail, return receipt requested, within 90 days after the end of

the fiscal year for which the year-end financial data show that the licensee no longer meets the financial test requirements. The licensee shall provide alternate financial surety within 120 days after the end of such fiscal year.

(f) The terms of a self-guarantee which an applicant or licensee furnishes shall provide that:

(1) The guarantee shall remain in force unless the licensee sends notice of cancellation by certified mail, and/or return receipt requested, to the Department; cancellation may not occur unless an alternative financial surety mechanism is in place.

(2) The licensee shall provide alternative financial surety as specified in the Department's regulations within 90 days following receipt by the Department of a notice of cancellation of the guarantee;

(3) The guarantee and financial test provisions must remain in effect until the Department has terminated the license or until another financial surety method acceptable to the Department has been put in effect by the licensee;

(4) The applicant or licensee must provide to the Department a written guarantee (a written commitment by a corporate officer or officer of the institution) which states that the licensee will fund and carry out the required decommissioning activities or, upon issuance of an order by the Department, the licensee will set up and fund a trust or deposit to the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092 in the amount of the current cost estimates for decommissioning; and

(5) If, at any time, the licensee's most recent bond issuance ceases to be rated in any category of "A" or above by either Standard and Poor's or Moody's, the licensee shall notify the Department in writing within 20 days after publication of the change by the rating service. If the licensee's most recent bond issuance ceases to be rated in any category of "A-" and above by Standard and Poor's or in any category of "A3" and above by Moody's, the licensee no longer meets the requirements of subsection (b) or (c).

(6) A standby trust or deposit into the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092 must be established for decommissioning costs before the self-guarantee agreement is submitted. The trustee and trust must be acceptable to the Department. An acceptable trustee includes an appropriate State or Federal Government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency. The Department has the right to change the trustee. An acceptable trust will meet the regulatory criteria established in this section that governs the issuance of the license for which the guarantor has accepted the obligation to pay for decommissioning costs.

(7) The guarantor must agree that if the guarantor admits in writing its inability to pay its debts generally, or makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against the guarantor seeking to adjudicate it as bankrupt or insolvent, or seeking dissolution, liquidation, winding-up, reorganization, arrangement, adjustment, protection, relief or composition of it or its debts under any law relating to bankruptcy, insolvency, or reorganization or relief of debtors, or seeking the entry of an order for relief or the appointment of a receiver, trustee, custodian, or other similar official for guarantor or for any substantial part of its property, or the guarantor takes any action to authorize or effect any of the actions stated in this paragraph, then the Department may:

(A) Declare that the financial surety guaranteed by the self-guarantee agreement is immediately due and payable to the standby trust or to the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092, without prior demand or any other notice of any kind, both of which are expressly waived by guarantor; and

(B) Exercise any and all of its other rights under applicable law.

(8) The guarantor must notify the Department, in writing, immediately following the occurrence of any event listed in paragraph (7), and must include a description of the event, including major creditors, the amounts involved, and the actions taken to

assure that the amount of funds guaranteed by the self-guarantee agreement for decommissioning will be transferred as soon as possible to the standby trust or to the Financial Surety Account within the Radiation Control Fund administered by the Department pursuant to Health and Safety Code Section 115092.

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

Adopt Section 30197.7 to read as follows:

Section 30197.7. Schedule of Material Quantities for Use in Determining Financial Surety Amounts.

<u>Material</u>	<u>Microcuries</u>
<u>Americium-241</u>	<u>0.01</u>
<u>Antimony-122</u>	<u>100</u>
<u>Antimony-124</u>	<u>10</u>
<u>Antimony-125</u>	<u>10</u>
<u>Arsenic-73</u>	<u>100</u>
<u>Arsenic-74</u>	<u>10</u>
<u>Arsenic-76</u>	<u>10</u>
<u>Arsenic-77</u>	<u>100</u>
<u>Barium-131</u>	<u>10</u>
<u>Barium-133</u>	<u>10</u>
<u>Barium-140</u>	<u>10</u>
<u>Bismuth-210</u>	<u>1</u>
<u>Bromine-82</u>	<u>10</u>
<u>Cadmium-109</u>	<u>10</u>
<u>Cadmium-115m</u>	<u>10</u>
<u>Cadmium-115</u>	<u>100</u>
<u>Calcium-45</u>	<u>10</u>
<u>Calcium-47</u>	<u>10</u>
<u>Carbon-14</u>	<u>100</u>
<u>Cerium-141</u>	<u>100</u>
<u>Cerium-143</u>	<u>100</u>
<u>Cerium-144</u>	<u>1</u>
<u>Cesium-131</u>	<u>1,000</u>

<u>Material</u>	<u>Microcuries</u>
<u>Cesium-134m</u>	<u>100</u>
<u>Cesium-134</u>	<u>1</u>
<u>Cesium-135</u>	<u>10</u>
<u>Cesium-136</u>	<u>10</u>
<u>Cesium-137</u>	<u>10</u>
<u>Chlorine-36</u>	<u>10</u>
<u>Chlorine-38</u>	<u>10</u>
<u>Chromium-51</u>	<u>1,000</u>
<u>Cobalt-58m</u>	<u>10</u>
<u>Cobalt-58</u>	<u>10</u>
<u>Cobalt-60</u>	<u>1</u>
<u>Copper-64</u>	<u>100</u>
<u>Dysprosium-165</u>	<u>10</u>
<u>Dysprosium-166</u>	<u>100</u>
<u>Erbium-169</u>	<u>100</u>
<u>Erbium-171</u>	<u>100</u>
<u>Europium-152 9.2 h</u>	<u>100</u>
<u>Europium-152 13 yr</u>	<u>1</u>
<u>Europium-154</u>	<u>1</u>
<u>Europium-155</u>	<u>10</u>
<u>Fluorine-18</u>	<u>1,000</u>
<u>Gadolinium-153</u>	<u>10</u>
<u>Gadolinium-159</u>	<u>100</u>
<u>Gallium-72</u>	<u>10</u>
<u>Germanium-71</u>	<u>100</u>
<u>Gold-198</u>	<u>100</u>

<u>Material</u>	<u>Microcuries</u>
<u>Gold-199</u>	<u>100</u>
<u>Hafnium-181</u>	<u>10</u>
<u>Holmium-166</u>	<u>100</u>
<u>Hydrogen-3</u>	<u>1,000</u>
<u>Indium-113m</u>	<u>100</u>
<u>Indium-114m</u>	<u>10</u>
<u>Indium-115m</u>	<u>100</u>
<u>Indium-115</u>	<u>10</u>
<u>Iodine-125</u>	<u>1</u>
<u>Iodine-126</u>	<u>1</u>
<u>Iodine-129</u>	<u>0.1</u>
<u>Iodine-131</u>	<u>1</u>
<u>Iodine-132</u>	<u>10</u>
<u>Iodine-133</u>	<u>1</u>
<u>Iodine-134</u>	<u>10</u>
<u>Iodine-135</u>	<u>10</u>
<u>Iridium-192</u>	<u>10</u>
<u>Iridium-194</u>	<u>100</u>
<u>Iron-55</u>	<u>100</u>
<u>Iron-59</u>	<u>10</u>
<u>Krypton-85</u>	<u>100</u>
<u>Krypton-87</u>	<u>10</u>
<u>Lanthanum-140</u>	<u>10</u>
<u>Lutetium-177</u>	<u>100</u>
<u>Manganese-52</u>	<u>10</u>
<u>Manganese-54</u>	<u>10</u>

<u>Material</u>	<u>Microcuries</u>
<u>Manganese-56</u>	<u>10</u>
<u>Mercury-197m</u>	<u>100</u>
<u>Mercury-197</u>	<u>100</u>
<u>Mercury-203</u>	<u>10</u>
<u>Molybdenum-99</u>	<u>100</u>
<u>Neodymium-147</u>	<u>100</u>
<u>Neodymium-149</u>	<u>100</u>
<u>Nickel-59</u>	<u>100</u>
<u>Nickel-63</u>	<u>10</u>
<u>Nickel-65</u>	<u>100</u>
<u>Niobium-93m</u>	<u>10</u>
<u>Niobium-95</u>	<u>10</u>
<u>Niobium-97</u>	<u>10</u>
<u>Osmium-185</u>	<u>10</u>
<u>Osmium-191m</u>	<u>100</u>
<u>Osmium-191</u>	<u>100</u>
<u>Osmium-193</u>	<u>100</u>
<u>Palladium-103</u>	<u>100</u>
<u>Palladium-109</u>	<u>100</u>
<u>Phosphorus-32</u>	<u>10</u>
<u>Platinum-191</u>	<u>100</u>
<u>Platinum-193m</u>	<u>100</u>
<u>Platinum-193</u>	<u>100</u>
<u>Platinum-197m</u>	<u>100</u>
<u>Platinum-197</u>	<u>100</u>
<u>Plutonium-239</u>	<u>0.01</u>

<u>Material</u>	<u>Microcuries</u>
<u>Polonium-210</u>	<u>0.1</u>
<u>Potassium-42</u>	<u>10</u>
<u>Praseodymium-142</u>	<u>100</u>
<u>Praseodymium-143</u>	<u>100</u>
<u>Promethium-147</u>	<u>10</u>
<u>Promethium-149</u>	<u>10</u>
<u>Radium-226</u>	<u>0.01</u>
<u>Rhenium-186</u>	<u>100</u>
<u>Rhenium-188</u>	<u>100</u>
<u>Rhodium-103m</u>	<u>100</u>
<u>Rhodium-105</u>	<u>100</u>
<u>Rubidium-86</u>	<u>10</u>
<u>Rubidium-87</u>	<u>10</u>
<u>Ruthenium-97</u>	<u>100</u>
<u>Ruthenium-103</u>	<u>10</u>
<u>Ruthenium-105</u>	<u>10</u>
<u>Ruthenium-106</u>	<u>1</u>
<u>Samarium-151</u>	<u>10</u>
<u>Samarium-153</u>	<u>100</u>
<u>Scandium-46</u>	<u>10</u>
<u>Scandium-47</u>	<u>100</u>
<u>Scandium-48</u>	<u>10</u>
<u>Selenium-75</u>	<u>10</u>
<u>Silicon-31</u>	<u>100</u>
<u>Silver-105</u>	<u>10</u>
<u>Silver-110m</u>	<u>1</u>

<u>Material</u>	<u>Microcuries</u>
<u>Silver-111</u>	<u>100</u>
<u>Sodium-24</u>	<u>10</u>
<u>Strontium-85</u>	<u>10</u>
<u>Strontium-89</u>	<u>1</u>
<u>Strontium-90</u>	<u>0.1</u>
<u>Strontium-91</u>	<u>10</u>
<u>Strontium-92</u>	<u>10</u>
<u>Sulphur-35</u>	<u>100</u>
<u>Tantalum-182</u>	<u>10</u>
<u>Technetium-96</u>	<u>10</u>
<u>Technetium-97m</u>	<u>100</u>
<u>Technetium-97</u>	<u>100</u>
<u>Technetium-99m</u>	<u>100</u>
<u>Technetium-99</u>	<u>10</u>
<u>Tellurium-125m</u>	<u>10</u>
<u>Tellurium-127m</u>	<u>10</u>
<u>Tellurium-127</u>	<u>100</u>
<u>Tellurium-129m</u>	<u>10</u>
<u>Tellurium-129</u>	<u>100</u>
<u>Tellurium-131m</u>	<u>10</u>
<u>Tellurium-132</u>	<u>10</u>
<u>Terbium-160</u>	<u>10</u>
<u>Thallium-200</u>	<u>100</u>
<u>Thallium-201</u>	<u>100</u>
<u>Thallium-202</u>	<u>100</u>
<u>Thallium-204</u>	<u>10</u>

<u>Material</u>	<u>Microcuries</u>
<u>Thorium (natural)¹</u>	<u>100</u>
<u>Thulium-170</u>	<u>10</u>
<u>Thulium-171</u>	<u>10</u>
<u>Tin-113</u>	<u>10</u>
<u>Tin-125</u>	<u>10</u>
<u>Tungsten-181</u>	<u>10</u>
<u>Tungsten-185</u>	<u>10</u>
<u>Tungsten-187</u>	<u>100</u>
<u>Uranium (natural)²</u>	<u>100</u>
<u>Uranium-233</u>	<u>0.01</u>
<u>Uranium-234—Uranium-235</u>	<u>0.01</u>
<u>Vanadium-48</u>	<u>10</u>
<u>Xenon-131m</u>	<u>1,000</u>
<u>Xenon-133</u>	<u>100</u>
<u>Xenon-135</u>	<u>100</u>
<u>Ytterbium-175</u>	<u>100</u>
<u>Yttrium-90</u>	<u>10</u>
<u>Yttrium-91</u>	<u>10</u>
<u>Yttrium-92</u>	<u>100</u>
<u>Yttrium-93</u>	<u>100</u>
<u>Zinc-65</u>	<u>10</u>
<u>Zinc-69m</u>	<u>100</u>
<u>Zinc-69</u>	<u>1,000</u>
<u>Zirconium-93</u>	<u>10</u>
<u>Zirconium-95</u>	<u>10</u>
<u>Zirconium-97</u>	<u>10</u>

<u>Material</u>	<u>Microcuries</u>
<u>Any alpha emitting radionuclide not listed above or mixtures of alpha emitters of unknown composition.</u>	<u>0.01</u>
<u>Any radionuclide other than alpha emitting radionuclides, not listed above or mixtures of beta emitters of unknown composition.</u>	<u>0.1</u>

¹ Based on alpha disintegration rate of Th-232, Th-230 and their daughter products.

² Based on alpha disintegration rate of U-238, U-234, and U-235.

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

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