

AMENDED IN ASSEMBLY AUGUST 29, 2002

AMENDED IN ASSEMBLY JULY 3, 2002

AMENDED IN SENATE MAY 8, 2002

AMENDED IN SENATE APRIL 18, 2002

AMENDED IN SENATE APRIL 9, 2002

SENATE BILL

No. 1444

Introduced by Senator Kuehl

February 15, 2002

An act to add ~~Chapter 11 (commencing with Section 115310) to Part 9 of Division 104 of Section 114716~~ to the Health and Safety Code, relating to radiation.

LEGISLATIVE COUNSEL'S DIGEST

SB 1444, as amended, Kuehl. Radiation: contamination.

(1) The existing Radiation Control Law requires the State Department of Health Services, among other things, to issue licenses, and prohibits the state department from issuing a license to receive radioactive material for disposal on land unless specified requirements are satisfied. *Existing law prohibits any person from burying, throwing away, or disposing of radioactive waste except in a manner that will result in no significant radioactive contamination of the environment.*

~~This bill would prohibit any person from selling, transferring, or leasing radioactive contaminated property, as defined, for any subsequent land use until the radioactive material has been removed and transferred to a licensed radioactive waste disposal facility, unless the department makes a specified determination regarding the risk to the~~

~~public from that property and requires the recording of a binding covenant with regard to that property. The bill would authorize a person to apply to the department for an alternative remediation standard for the sale, transfer, or lease of radioactive contaminated property if it is not feasible to lower the risk of cancer or any other serious health effect to one-in-a-million, and would specify a procedure for the granting of such an alternative remediation standard.~~

~~The bill would require any person subject to these requirements to use thorough and rigorous monitoring of the radioactive contaminated property involved, using best available techniques, equipment, and methodology to provide high assurance that any residual contamination of radioactive material will be identified and to remove any contamination at levels above background, except as specified. The bill would allow the leasing of the uncontaminated portion of radioactive contaminated property for specified industrial use or other uses.~~

~~(2) The bill would declare that the provisions of the bill are severable and if any provision of the bill or its application is held invalid, that invalidity would not affect other provisions or applications that can be given effect without the invalid provision or application.~~

This bill would require the department to direct a person who owns a site, as defined to mean all parcels of land that comprise the Santa Susana Field Laboratory in Ventura County for which the department determines that a partial or full reactor meltdown has occurred, to use thorough and rigorous monitoring of the site using best available technology, equipment, and methodology, as specified. The bill would prohibit a person from selling, transferring, or leasing that site, for which the department has made that determination, for any subsequent land use unless the site cleanup meets specified radiation dose standards. The bill would require that a person who removes material from that site that has radioactive contamination above background to transfer the material to a disposal facility specifically licensed for that type of waste.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

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

- 1 ~~SECTION 1. Chapter 11 (commencing with Section 115310)~~
- 2 *SECTION 1. Section 114716 is added to the Health and Safety*
- 3 *Code, to read:*



1 114716. (a) *The department shall require a person who owns*
2 *a site, for which the department determines that a partial or full*
3 *reactor meltdown has occurred on that site, to use thorough and*
4 *rigorous monitoring of the site using best available technology,*
5 *equipment, and methodology, to provide a high assurance that any*
6 *residual contamination is identified. The monitoring of the site*
7 *shall be consistent with those measures provided in the United*
8 *States Environmental Protection Agency’s September 2001 Draft*
9 *Scoping Document for Development of Workplan for a Soil*
10 *Radiation Survey of Santa Susana Field Laboratory Area IV. The*
11 *department shall require the monitoring measures at the site to*
12 *consist of at least 80 percent of the amount of surface and*
13 *subsurface soil samples identified in that document.*

14 (b) *No person shall sell, transfer, or lease a site for which the*
15 *department has made the determination specified in subdivision*
16 *(a) for any subsequent land use unless the site cleanup meets the*
17 *radiation dose standards provided in Section 15 of the “Guidance*
18 *for Cleanup of Radioactivity on Closing Military Bases for*
19 *Unrestricted Public Use of Property” issued by the Radiological*
20 *Health Branch of the department on April 5, 1994.*

21 (c) *If any person removes material removed from a site for which*
22 *the department has made the determination specified in*
23 *subdivision (a) and the material has radioactive contamination*
24 *above background, the material shall be transferred to a disposal*
25 *facility specifically licensed for that type of waste by any of the*
26 *following:*

27 (1) *The department, pursuant to Chapter 8 (commencing with*
28 *Section 114960).*

29 (2) *The Nuclear Regulatory Commission.*

30 (3) *A state that has entered into an agreement pursuant to*
31 *Section 2021 of Title 42 of the United States Code.*

32 (4) *An authorized disposal site at a Department of Energy*
33 *facility.*

34 (d) *For purposes of this section, the following definitions shall*
35 *apply:*

36 (1) *“Background” means the local level of radioactivity from*
37 *nature of like materials without enhancement by human activity,*
38 *plus the local levels of fallout from nuclear weapons testing and*
39 *the local deposition of fallout from past nuclear accidents located*



1 elsewhere in the world, including, but not limited to, the nuclear
2 accident in Chernobyl.

3 (2) "Partial or full reactor meltdown" means an event at a
4 nuclear reactor that results in more than 2 percent of the fuel
5 elements experiencing any melting of fuel or cladding or
6 fuel-cladding eutectic.

7 (3) "Site" means all parcels of land that comprise the Santa
8 Susana Field Laboratory in Ventura County.

9 is added to Part 9 of Division 104 of the Health and Safety Code,
10 to read:

11
12 ~~CHAPTER 11. RADIOACTIVE CONTAMINATION PREVENTION ACT~~
13

14 ~~115310. This chapter shall be known and may be cited as the~~
15 ~~"Radioactive Contamination Prevention Act."~~

16 ~~115311. For purposes of this chapter, the following~~
17 ~~definitions shall apply:~~

18 (a) ~~"Background" means the local level of radioactivity from~~
19 ~~nature of like materials without enhancement by human activity,~~
20 ~~plus the local levels of fallout from nuclear weapons testing and~~
21 ~~the local deposition of fallout from past nuclear accidents located~~
22 ~~elsewhere in the world, including, but not limited to, the nuclear~~
23 ~~accident in Chernobyl.~~

24 (b) ~~"Best available technology" means any technique,~~
25 ~~equipment, technology, or methodology that the department finds~~
26 ~~to be most effective at detecting radiation or radioactivity, taking~~
27 ~~into consideration economic feasibility and commercial~~
28 ~~availability.~~

29 (c) ~~"Naturally occurring radioactive material" means material~~
30 ~~containing radionuclides that are naturally present in the~~
31 ~~environment in materials, including, but not limited to, rocks, soil,~~
32 ~~minerals, natural gas, petroleum, and ground or surface water at~~
33 ~~concentrations that occur naturally. Naturally occurring~~
34 ~~radioactive material does not include material containing only~~
35 ~~radionuclides that are artificially created or any of the types of~~
36 ~~radioactive material described in subdivision (h).~~

37 (d) ~~"Partial or full reactor meltdown" means an event at a~~
38 ~~nuclear reactor that results in more than 2 percent of the fuel~~
39 ~~elements experiencing any melting of fuel or cladding or~~
40 ~~fuel-cladding eutectic.~~



1 ~~(c) “Person” means an individual, trust, firm, joint stock~~
2 ~~company, business concern, partnership, limited liability~~
3 ~~company, association, or corporation, including, but not limited~~
4 ~~to, a government corporation. “Person” also includes any city,~~
5 ~~county, district, commission, the state or any department, agency,~~
6 ~~or political subdivision thereof, any interstate body, and the federal~~
7 ~~government or any department or agency thereof, to the extent~~
8 ~~permitted by law.~~

9 ~~(f) (1) “Radioactive contaminated property” means real~~
10 ~~property under common ownership or control that is a location~~
11 ~~where activities were undertaken that were subject to a license~~
12 ~~issued pursuant to Chapter 8 (commencing with Section 114960)~~
13 ~~or by the Nuclear Regulatory Commission pursuant to the Atomic~~
14 ~~Energy Act (42 U.S.C. Sec. 2014 and following), or the activities~~
15 ~~were by, or for, an unlicensed federal entity, and the property is~~
16 ~~contaminated with radioactive waste or radioactive material from~~
17 ~~those activities.~~

18 ~~(2) “Property under common ownership or control” includes,~~
19 ~~but is not limited to, all parcels of land that comprise the Santa~~
20 ~~Susanna Field Laboratory in Ventura County.~~

21 ~~(g) “Radioactive waste” means any discarded radioactive~~
22 ~~material with radioactivity above the background level when~~
23 ~~measured with the best available technology.~~

24 ~~(h) (1) “Radioactive material” includes, but is not limited to,~~
25 ~~all of the following, when in concentrations in excess of the~~
26 ~~background levels as measured with best available technology.~~

27 ~~(A) Byproduct material, defined as either of the following:~~

28 ~~(i) Any radioactive material, excluding special nuclear~~
29 ~~material, that is yielded in, or made radioactive by, exposure to~~
30 ~~radiation incident to the process of producing or utilizing special~~
31 ~~nuclear material.~~

32 ~~(ii) Tailings or waste produced by the extraction or~~
33 ~~concentration of uranium or thorium from any ore processed~~
34 ~~primarily for its source material content, including, but not limited~~
35 ~~to, discrete surface wastes resulting from solution extraction~~
36 ~~processes. Underground ore bodies depleted by those solution~~
37 ~~extraction operations are not byproduct material for the purposes~~
38 ~~of this chapter.~~

39 ~~(B) Source and special nuclear material, as defined in~~
40 ~~subdivisions (e) and (f) of Section 114985.~~



1 ~~(C) FUSRAP material, defined as any material containing~~
2 ~~radioactivity from the Formerly Utilized Sites Remedial Action~~
3 ~~Program, irrespective of the time and location of the generation of~~
4 ~~that material, that does not otherwise meet the conditions of~~
5 ~~subparagraph (A) or (B).~~

6 ~~(D) Any other material determined by the department by~~
7 ~~regulation to be radioactive material for the purposes of this~~
8 ~~section. The department may not determine TENORM to be~~
9 ~~radioactive material for the purposes of this section.~~

10 ~~(2) “Radioactive material,” as defined in this subdivision,~~
11 ~~does not include either of the following:~~

12 ~~(A) TENORM.~~

13 ~~(B) Any material listed in subdivisions (a) to (c), inclusive, of~~
14 ~~Section 115311.5.~~

15 ~~(i) “TENORM” means technologically enhanced naturally~~
16 ~~occurring radioactive material that past or present human~~
17 ~~activities, including, but not limited to, petroleum and natural gas~~
18 ~~production and refining, geothermal production, and mining~~
19 ~~operations unrelated to activities primarily intended to extract or~~
20 ~~use uranium or thorium, have incidentally concentrated or~~
21 ~~exposed to the accessible environment in concentrations in excess~~
22 ~~of the naturally occurring local surface background. TENORM~~
23 ~~does not include the radioactive materials described in paragraph~~
24 ~~(1) of subdivision (h).~~

25 ~~115311.5. This chapter does not apply to radioactive~~
26 ~~contaminated property that is contaminated solely by any of the~~
27 ~~following materials or activities:~~

28 ~~(a) Short lived radioactive materials of the type that are~~
29 ~~commonly used in medicine, biotechnology, and academia, that~~
30 ~~are at the end of their storage-to-decay period, and that are~~
31 ~~managed by an approved storage-to-decay program, including an~~
32 ~~onsite facility or a centralized facility.~~

33 ~~(b) Liquid and gaseous radioactive effluents and releases to~~
34 ~~sanitary sewers, of the types, amounts, and concentrations~~
35 ~~specified in the regulations adopted by the Nuclear Regulatory~~
36 ~~Commission or the department.~~

37 ~~(c) Scintillation liquids from research and animal tissues~~
38 ~~containing the amounts of tritium and carbon-14 specified in~~
39 ~~Section 20.2005 of Title 10 of the Code of Federal Regulations, as~~
40 ~~that section read on January 1, 2003.~~



1 ~~(d) The technetium-99 associated with molybdenum-99~~
2 ~~radioisotope generators of the type used in medicine.~~

3 ~~(e) Radioactive materials intentionally inserted into products~~
4 ~~for their radioactive purpose and that are specifically exempted by~~
5 ~~the Nuclear Regulatory Commission from Part 30 (commencing~~
6 ~~with Section 30.1) and Part 40 (commencing with Section 40.1)~~
7 ~~of Title 10 of the Code of Federal Regulations, as those regulations~~
8 ~~read on the date of enactment of the Energy Policy Act of 1992~~
9 ~~(P.L. 102-486).~~

10 ~~(f) The reuse or recycling of a radioactively contaminated item~~
11 ~~by a person licensed to possess that item, pursuant to Chapter 8~~
12 ~~(commencing with Section 114960) or by the Nuclear Regulatory~~
13 ~~Commission, to the extent that the item remains on the licensed site~~
14 ~~and is subject to regulatory control of its onsite use.~~

15 ~~(g) The reuse or recycling of a radioactive item by an~~
16 ~~unlicensed federal entity, to the extent the item remains on the~~
17 ~~property of the federal entity and under its control.~~

18 ~~(h) The handling and disposal of wastes containing TENORM~~
19 ~~that meet both of the following criteria:~~

20 ~~(1) Do not also contain radioactive waste.~~

21 ~~(2) Are below any limit established by the Department of Toxic~~
22 ~~Substances Control.~~

23 ~~115312. (a) Except as provided in subdivisions (b) and (c),~~
24 ~~no person shall sell, transfer, or lease radioactive contaminated~~
25 ~~property for any subsequent land use, until the radioactive material~~
26 ~~has been removed pursuant to subdivision (c) and transferred to a~~
27 ~~disposal facility specifically licensed for that type of waste by any~~
28 ~~of the following:~~

29 ~~(1) The department, pursuant to Chapter 8 (commencing with~~
30 ~~Section 114960).~~

31 ~~(2) The Nuclear Regulatory Commission.~~

32 ~~(3) A state that has entered into an agreement pursuant to~~
33 ~~Section 2021 of Title 42 of the United States Code.~~

34 ~~(4) An authorized disposal site at a Department of Energy~~
35 ~~facility.~~

36 ~~(b) (1) Notwithstanding subdivision (a), a person may sell,~~
37 ~~transfer, or lease radioactive contaminated property if the~~
38 ~~department determines that the remaining risk to a member of the~~
39 ~~public from the radioactive contaminated property would not~~
40 ~~exceed a one in a million risk of cancer or any other serious health~~



1 effect or if the department makes the determination specified in
2 paragraph (3). In calculating risk for this subdivision, the
3 department shall use the most restrictive potential land use, based
4 on the premise that any land use restriction may eventually fail.
5 When more than one generally accepted model or technique is
6 available, or input regarding a model or technique, the department
7 shall use the model or technique, or input regarding that model or
8 technique, that generally leads to the outcome most protective of
9 public health and the environment.

10 (2) If the department authorizes the sale, transfer, or lease of
11 real property pursuant to this subdivision, the department shall
12 require the property owner to record a binding covenant pursuant
13 to Section 1471 of the Civil Code that does both of the following:

14 (A) Identifies the location, nature, type, concentration and
15 amount of radioactive materials on the radioactive contaminated
16 property.

17 (B) Prohibits, in perpetuity, the removal and transfer of
18 radioactive material from the radioactive contaminated property
19 to any location, except a facility that is specifically licensed, or, in
20 the case of clause (iv), authorized, to accept the materials by one
21 or more of the following:

22 (i) The department, pursuant to Chapter 8 (commencing with
23 Section 114960).

24 (ii) The Nuclear Regulatory Commission.

25 (iii) A state that has entered into an agreement pursuant to
26 Section 2021 of Title 42 of the United States Code.

27 (iv) An authorized disposal site at a Department of Energy
28 facility.

29 (3) (A) If it is not feasible to lower the risk of cancer or any
30 other serious health effect to one in a million, as required by
31 paragraph (1), a person may apply to the department for an
32 alternative remediation standard for the sale, transfer, or lease of
33 radioactive contaminated property. The application submitted to
34 the department for an alternative remediation standard pursuant to
35 this paragraph shall assess the alternative standard using the nine
36 criteria for the evaluation of remedial alternatives specified in
37 clause (iii) of subparagraph (9) of paragraph (2) of subsection (e)
38 of Section 300.430 of Title 40 of the Code of Federal Regulations,
39 as found in the National Oil and Hazardous Substances Pollution
40 Contingency Plan in Part 300 (commencing with Section 300.1)



1 of Subchapter J of Chapter 1 of Title 40 of the Code of Federal
2 Regulations.

3 (B) The public shall be provided with notice regarding any
4 application for an alternative remediation standard filed pursuant
5 to this paragraph, including an opportunity for public comment.

6 (C) An environmental impact report shall be prepared pursuant
7 to Division 13 (commencing with Section 21000) of the Public
8 Resources Code for any application for an alternative remediation
9 standard filed pursuant to this section.

10 (D) If the department finds that the criteria specified in
11 subparagraph (A) have been met, and grants an alternative
12 remediation standard, the department shall require the remaining
13 risk as a result of the cleanup of the radioactive contaminated
14 property to be set as close to one in a million risk of cancer or
15 other serious health effects as is feasible, but not greater than a risk
16 of one in one hundred thousand risk of cancer or other serious
17 health effects.

18 (E) The department may grant an alternative remediation
19 standard pursuant to this paragraph rarely and only under
20 circumstances where the department finds that cleanup to a
21 standard of a one in a million risk of cancer or other serious health
22 effects is not feasible for technological reasons or other related
23 reasons.

24 (e) (1) Any person subject to this section shall use thorough
25 and rigorous monitoring of the radioactive contaminated property
26 involved, using best available techniques, equipment, and
27 methodology, to provide a high assurance that any residual
28 contamination of radioactive material is identified.

29 (2) Notwithstanding subdivision (b) of Section 115311, with
30 regard to requiring the best available technology for equipment, if
31 the department determines that a person's existing equipment is
32 reasonably comparable to the best available technology, the
33 department shall not require a person responsible for conducting
34 a radiation survey pursuant to this chapter to obtain new
35 monitoring equipment.

36 (3) A person subject to this section shall remove any
37 contamination at a level above background, or, if the alternative
38 remediation method specified in subdivision (b) is chosen, above
39 the one in a million risk level specified in paragraph (1) of
40 subdivision (b) or the alternative risk level specified by the



1 department pursuant to paragraph (3) of subdivision (b), and the
2 amount of contamination shall be removed without averaging over
3 any larger area.

4 (4) ~~If the department determines there has been a serious
5 radiological incident on any part of the radioactive contaminated
6 property, including a partial or full reactor meltdown, the
7 department shall require a person subject to this section to use
8 monitoring measures in addition to those required by paragraph
9 (1) that are consistent with those measures provided in the U.S.
10 Environmental Protection Agency's September 2001 Draft
11 Scoping Document for Development of Workplan for a Soil
12 Radiation Survey of Santa Susana Field Laboratory Area IV. The
13 department shall require the monitoring measures at the
14 radioactive contaminated property to consist of at least 80 percent
15 of the amount of surface and subsurface soil samples identified in
16 that document.~~

17 ~~(d) With regard to any enforcement action regarding
18 radioactive contaminated property that is subject to this section,
19 there is a rebuttable presumption that the radioactive contaminated
20 property is contaminated, and the person who owns the radioactive
21 contaminated property shall bear the burden of proof to
22 demonstrate, with high confidence, that the site, soil, or structure
23 is not contaminated.~~

24 ~~(e) Notwithstanding subdivisions (a) and (c), a person may,
25 prior to completion of decontamination of the radioactively
26 contaminated property, lease uncontaminated portions of the
27 radioactive contaminated property for industrial uses, or other
28 uses consistent with land zoned for open space, including, but not
29 limited to, grazing livestock and similar uses. Any land leased
30 under this subdivision may not include a school or a child day care
31 facility, as defined in Section 25534.1, or any other related use
32 where a child would be on the property on a regular basis.~~

33 ~~(f) Notwithstanding any provision of law, including
34 subdivision (e) of Section 115060, the department shall not adopt
35 or grant any exemption from the requirements of this chapter.~~

36 ~~SEC. 2. The provisions of this act are severable. If any
37 provision of this act or its application is held invalid, that invalidity~~



- 1 ~~shall not affect other provisions or applications that can be given~~
- 2 ~~effect without the invalid provision or application.~~

O

