

117TH CONGRESS
1ST SESSION

S. _____

To amend the Radiation Exposure Compensation Act to improve compensation for workers involved in uranium mining, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. CRAPO (for himself and Mr. LUJÁN) introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To amend the Radiation Exposure Compensation Act to improve compensation for workers involved in uranium mining, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Radiation Exposure
5 Compensation Act Amendments of 2021”.

6 **SEC. 2. REFERENCES.**

7 Except as otherwise specifically provided, whenever in
8 this Act an amendment or repeal is expressed in terms
9 of an amendment to or repeal of a section or other provi-
10 sion of law, the reference shall be considered to be made

1 to a section or other provision of the Radiation Exposure
2 Compensation Act (Public Law 101–426; 42 U.S.C. 2210
3 note).

4 **SEC. 3. EXTENSION OF FUND.**

5 Section 3(d) is amended—

6 (1) by striking the first sentence and inserting
7 “The Fund shall terminate 19 years after the date
8 of the enactment of the Radiation Exposure Com-
9 pensation Act Amendments of 2021.”; and

10 (2) by striking “22-year” and inserting “19-
11 year”.

12 **SEC. 4. CLAIMS RELATING TO ATMOSPHERIC TESTING.**

13 (a) LEUKEMIA CLAIMS RELATING TO TRINITY TEST
14 IN NEW MEXICO AND TESTS AT THE NEVADA SITE AND
15 IN THE PACIFIC.—Section 4(a)(1)(A) is amended—

16 (1) in clause (i)—

17 (A) in subclause (I), by striking “October
18 31, 1958” and inserting “November 6, 1962”;

19 (B) in subclause (II)—

20 (i) by striking “in the affected area”
21 and inserting “in an affected area”; and

22 (ii) by striking “or” after the semi-
23 colon;

24 (C) by redesignating subclause (III) as
25 subclause (V); and

1 (D) by inserting after subclause (II) the
2 following:

3 “(III) was physically present in an af-
4 fected area for a period of at least 1 year
5 during the period beginning on September
6 24, 1944, and ending on November 6,
7 1962; or

8 “(IV) was physically present in an af-
9 fected area—

10 “(aa) for a period of at least 1
11 year during the period beginning on
12 July 1, 1946, and ending on Novem-
13 ber 6, 1962; or

14 “(bb) for the period beginning on
15 April 25, 1962, and ending on No-
16 vember 6, 1962; or”; and

17 (2) in clause (ii)(I), by striking “physical pres-
18 ence described in subclause (I) or (II) of clause (i)
19 or onsite participation described in clause (i)(III)”
20 and inserting “physical presence described in sub-
21 clause (I), (II), (III), or (IV) of clause (i) or onsite
22 participation described in clause (i)(V)”.

23 (b) AMOUNTS FOR CLAIMS RELATED TO LEU-
24 KEMIA.—Section 4(a)(1) is amended—

1 (1) in subparagraph (A), by striking “an
2 amount” and inserting “the amount”; and

3 (2) by striking subparagraph (B) and inserting
4 the following:

5 “(B) AMOUNT.—If the conditions de-
6 scribed in subparagraph (C) are met, an indi-
7 vidual who is described in subparagraph (A)
8 shall receive \$150,000.”.

9 (c) CONDITIONS FOR CLAIMS RELATED TO LEU-
10 KEMIA.—Section 4(a)(1)(C) is amended—

11 (1) by striking clause (i); and

12 (2) by redesignating clauses (ii) and (iii) as
13 clauses (i) and (ii), respectively.

14 (d) SPECIFIED DISEASES CLAIMS RELATING TO
15 TRINITY TEST IN NEW MEXICO AND TESTS AT THE NE-
16 VADA SITE AND IN THE PACIFIC.—Section 4(a)(2) is
17 amended—

18 (1) in subparagraph (A)—

19 (A) by striking “in the affected area” and
20 inserting “in an affected area”;

21 (B) by striking “2 years” and inserting “1
22 year”; and

23 (C) by striking “October 31, 1958” and
24 inserting “November 6, 1962”;

25 (2) in subparagraph (B)—

1 (A) by striking “in the affected area” and
2 inserting “in an affected area”; and

3 (B) by striking “or” at the end;

4 (3) by redesignating subparagraph (C) as sub-
5 paragraph (E); and

6 (4) by inserting after subparagraph (B) the fol-
7 lowing:

8 “(C) was physically present in an affected
9 area for a period of at least 1 year during the
10 period beginning on September 24, 1944, and
11 ending on November 6, 1962; or

12 “(D) was physically present in an affected
13 area—

14 “(i) for a period of at least 1 year
15 during the period beginning on July 1,
16 1946, and ending on November 6, 1962; or

17 “(ii) for the period beginning on April
18 25, 1962, and ending on November 6,
19 1962; or”.

20 (e) AMOUNTS FOR CLAIMS RELATED TO SPECIFIED
21 DISEASES.—Section 4(a)(2) is amended in the matter fol-
22 lowing subparagraph (E) (as redesignated by subsection
23 (d) of this section) by striking “\$50,000 (in the case of
24 an individual described in subparagraph (A) or (B)) or

1 \$75,000 (in the case of an individual described in subpara-
2 graph (C)),” and inserting “\$150,000”.

3 (f) MEDICAL BENEFITS.—Section 4(a) is amended
4 by adding at the end the following:

5 “(5) MEDICAL BENEFITS.—An individual re-
6 ceiving a payment under this section shall be eligible
7 to receive medical benefits in the same manner and
8 to the same extent as an individual eligible to receive
9 medical benefits under section 3629 of the Energy
10 Employees Occupational Illness Compensation Pro-
11 gram Act of 2000 (42 U.S.C. 7384t).”.

12 (g) DOWNWIND STATES.—Section 4(b)(1) is amend-
13 ed to read as follows:

14 “(1) ‘affected area’ means—

15 “(A) except as provided under subpara-
16 graphs (B) and (C), Arizona, Colorado, Idaho,
17 Montana, Nevada, New Mexico, Utah, and
18 Guam;

19 “(B) with respect to a claim by an indi-
20 vidual under subsection (a)(1)(A)(i)(III) or sub-
21 section (a)(2)(C), only New Mexico; and

22 “(C) with respect to a claim by an indi-
23 vidual under subsection (a)(1)(A)(i)(IV) or sub-
24 section (a)(2)(D), only Guam.”.

1 (h) CHRONIC LYMPHOCYTIC LEUKEMIA AS A SPECI-
2 FIED DISEASE.—Section 4(b)(2) is amended by striking
3 “other than chronic lymphocytic leukemia” and inserting
4 “including chronic lymphocytic leukemia”.

5 **SEC. 5. CLAIMS RELATING TO URANIUM MINING.**

6 (a) EMPLOYEES OF MINES AND MILLS.—Section
7 5(a)(1)(A)(i) is amended—

8 (1) by inserting “(I)” after “(i)”;

9 (2) by striking “December 31, 1971; and” and
10 inserting “December 31, 1990; or”; and

11 (3) by adding at the end the following:

12 “(II) was employed as a core driller in
13 a State referred to in subclause (I) during
14 the period described in such subclause;
15 and”.

16 (b) MINERS.—Section 5(a)(1)(A)(ii)(I) is amended
17 by inserting “or renal cancer or any other chronic renal
18 disease, including nephritis and kidney tubal tissue in-
19 jury” after “nonmalignant respiratory disease”.

20 (c) MILLERS, CORE DRILLERS, AND ORE TRANS-
21 PORTERS.—Section 5(a)(1)(A)(ii)(II) is amended—

22 (1) by inserting “, core driller,” after “was a
23 miller”;

1 (2) by inserting “, or was involved in remedi-
2 ation efforts at such a uranium mine or uranium
3 mill,” after “ore transporter”;

4 (3) by inserting “(I)” after “clause (i)”; and

5 (4) by striking all that follows “nonmalignant
6 respiratory disease” and inserting “or renal cancer
7 or any other chronic renal disease, including nephri-
8 tis and kidney tubal tissue injury; or”.

9 (d) COMBINED WORK HISTORIES.—Section
10 5(a)(1)(A)(ii) is further amended—

11 (1) by striking “or” at the end of subclause (I);

12 and

13 (2) by adding at the end the following:

14 “(III)(aa) does not meet the condi-
15 tions of subclause (I) or (II);

16 “(bb) worked, during the period de-
17 scribed in clause (i)(I), in two or more of
18 the following positions: miner, miller, core
19 driller, and ore transporter;

20 “(cc) meets the requirements of para-
21 graph (4) or (5), or both; and

22 “(dd) submits written medical docu-
23 mentation that the individual developed
24 lung cancer or a nonmalignant respiratory
25 disease or renal cancer or any other chron-

1 ic renal disease, including nephritis and
2 kidney tubal tissue injury after exposure to
3 radiation through work in one or more of
4 the positions referred to in item (bb);”.

5 (e) DATES OF OPERATION OF URANIUM MINE.—Sec-
6 tion 5(a)(2)(A) is amended by striking “December 31,
7 1971” and inserting “December 31, 1990”.

8 (f) SPECIAL RULES RELATING TO COMBINED WORK
9 HISTORIES.—Section 5(a) is amended by adding at the
10 end the following:

11 “(4) SPECIAL RULE RELATING TO COMBINED
12 WORK HISTORIES FOR INDIVIDUALS WITH AT LEAST
13 ONE YEAR OF EXPERIENCE.—An individual meets
14 the requirements of this paragraph if the individual
15 worked in one or more of the positions referred to
16 in paragraph (1)(A)(ii)(III)(bb) for a period of at
17 least one year during the period described in para-
18 graph (1)(A)(i)(I).

19 “(5) SPECIAL RULE RELATING TO COMBINED
20 WORK HISTORIES FOR MINERS.—An individual
21 meets the requirements of this paragraph if the indi-
22 vidual, during the period described in paragraph
23 (1)(A)(i)(I), worked as a miner and was exposed to
24 such number of working level months that the Attor-
25 ney General determines, when combined with the ex-

1 posure of such individual to radiation through work
2 as a miller, core driller, or ore transporter during
3 the period described in paragraph (1)(A)(i)(I), re-
4 sults in such individual being exposed to a total level
5 of radiation that is greater or equal to the level of
6 exposure of an individual described in paragraph
7 (4).”.

8 (g) DEFINITION OF CORE DRILLER.—Section 5(b) is
9 amended—

10 (1) by striking “and” at the end of paragraph
11 (7);

12 (2) by striking the period at the end of para-
13 graph (8) and inserting “; and”; and

14 (3) by adding at the end the following:

15 “(9) the term ‘core driller’ means any indi-
16 vidual employed to engage in the act or process of
17 obtaining cylindrical rock samples of uranium or va-
18 nadium by means of a borehole drilling machine for
19 the purpose of mining uranium or vanadium.”.

20 **SEC. 6. EXPANSION OF USE OF AFFIDAVITS IN DETERMINA-**
21 **TION OF CLAIMS; REGULATIONS.**

22 (a) AFFIDAVITS.—Section 6(b) is amended by adding
23 at the end the following:

24 “(3) AFFIDAVITS.—

1 “(A) EMPLOYMENT HISTORY.—For pur-
2 poses of this Act, the Attorney General shall ac-
3 cept a written affidavit or declaration as evi-
4 dence to substantiate the employment history of
5 an individual as a miner, miller, core driller, or
6 ore transporter if the affidavit—

7 “(i) is provided in addition to other
8 material that may be used to substantiate
9 the employment history of the individual;

10 “(ii) attests to the employment history
11 of the individual;

12 “(iii) is made subject to penalty for
13 perjury; and

14 “(iv) is made by a person other than
15 the individual filing the claim.

16 “(B) PHYSICAL PRESENCE IN AFFECTED
17 AREA.—For purposes of this Act, the Attorney
18 General shall accept a written affidavit or dec-
19 laration as evidence to substantiate an individ-
20 ual’s physical presence in an affected area dur-
21 ing a period described in section 4(a)(1)(A)(i)
22 or section 4(a)(2) if the affidavit—

23 “(i) is provided in addition to other
24 material that may be used to substantiate

1 the individual's presence in an affected
2 area during that time period;

3 “(ii) attests to the individual's pres-
4 ence in an affected area during that pe-
5 riod;

6 “(iii) is made subject to penalty for
7 perjury; and

8 “(iv) is made by a person other than
9 the individual filing the claim.

10 “(C) PARTICIPATION AT TESTING SITE.—

11 For purposes of this Act, the Attorney General
12 shall accept a written affidavit or declaration as
13 evidence to substantiate an individual's partici-
14 pation onsite in a test involving the atmospheric
15 detonation of a nuclear device if the affidavit—

16 “(i) is provided in addition to other
17 material that may be used to substantiate
18 the individual's participation onsite in a
19 test involving the atmospheric detonation
20 of a nuclear device;

21 “(ii) attests to the individual's partici-
22 pation onsite in a test involving the atmos-
23 pheric detonation of a nuclear device;

24 “(iii) is made subject to penalty for
25 perjury; and

1 “(iv) is made by a person other than
2 the individual filing the claim.”.

3 (b) TECHNICAL AND CONFORMING AMENDMENTS.—

4 Section 6 is amended—

5 (1) in subsection (b)(2)(C), by striking “section
6 4(a)(2)(C)” and inserting “section 4(a)(2)(E)”;

7 (2) in subsection (c)(2)—

8 (A) in subparagraph (A)—

9 (i) in the matter preceding clause (i),
10 by striking “subsection (a)(1), (a)(2)(A),
11 or (a)(2)(B) of section 4” and inserting
12 “subsection (a)(1), (a)(2)(A), (a)(2)(B),
13 (a)(2)(C), or (a)(2)(D) of section 4”; and

14 (ii) in clause (i), by striking “sub-
15 section (a)(1), (a)(2)(A), or (a)(2)(B) of
16 section 4” and inserting “subsection
17 (a)(1), (a)(2)(A), (a)(2)(B), (a)(2)(C), or
18 (a)(2)(D) of section 4”; and

19 (B) in subparagraph (B), by striking “sec-
20 tion 4(a)(2)(C)” and inserting “section
21 4(a)(2)(E)”;

22 (3) in subsection (e), by striking “subsection
23 (a)(1), (a)(2)(A), or (a)(2)(B) of section 4” and in-
24 serting “subsection (a)(1), (a)(2)(A), (a)(2)(B),
25 (a)(2)(C), or (a)(2)(D) of section 4”.

1 (c) REGULATIONS.—

2 (1) IN GENERAL.—Section 6(k) is amended by
3 adding at the end the following: “Not later than 180
4 days after the date of enactment of the Radiation
5 Exposure Compensation Act Amendments of 2021,
6 the Attorney General shall issue revised regulations
7 to carry out this Act.”.

8 (2) CONSIDERATIONS IN REVISIONS.—In
9 issuing revised regulations under section 6(k) of the
10 Radiation Exposure Compensation Act (Public Law
11 101–426; 42 U.S.C. 2210 note), as amended under
12 paragraph (1), the Attorney General shall ensure
13 that procedures with respect to the submission and
14 processing of claims under such Act take into ac-
15 count and make allowances for the law, tradition,
16 and customs of Indian tribes, including by accepting
17 as a record of proof of physical presence for a claim-
18 ant a grazing permit, a homesite lease, a record of
19 being a holder of a post office box, a letter from an
20 elected leader of an Indian tribe, or a record of any
21 recognized tribal association or organization.

22 **SEC. 7. LIMITATION ON CLAIMS.**

23 (a) EXTENSION OF FILING TIME.—Section 8(a) is
24 amended—

1 (1) by striking “22 years” and inserting “19
2 years”; and

3 (2) by striking “2000” and inserting “2021”.

4 (b) RESUBMITTAL OF CLAIMS.—Section 8(b) is
5 amended to read as follows:

6 “(b) RESUBMITTAL OF CLAIMS.—

7 “(1) DENIED CLAIMS.—After the date of enact-
8 ment of the Radiation Exposure Compensation Act
9 Amendments of 2021, any claimant who has been
10 denied compensation under this Act may resubmit a
11 claim for consideration by the Attorney General in
12 accordance with this Act not more than three times.
13 Any resubmittal made before the date of the enact-
14 ment of the Radiation Exposure Compensation Act
15 Amendments of 2021 shall not be applied to the lim-
16 itation under the preceding sentence.

17 “(2) PREVIOUSLY SUCCESSFUL CLAIMS.—

18 “(A) IN GENERAL.—After the date of en-
19 actment of the Radiation Exposure Compensa-
20 tion Act Amendments of 2021, any claimant
21 who received compensation under this Act may
22 submit a request to the Attorney General for
23 additional compensation and benefits. Such re-
24 quest shall contain—

1 “(i) the claimant’s name, social secu-
2 rity number, and date of birth;

3 “(ii) the amount of award received
4 under this Act before the date of enact-
5 ment of the Radiation Exposure Com-
6 pensation Act Amendments of 2021;

7 “(iii) any additional benefits and com-
8 pensation sought through such request;
9 and

10 “(iv) any additional information re-
11 quired by the Attorney General.

12 “(B) ADDITIONAL COMPENSATION.—If the
13 claimant received compensation under this Act
14 before the date of enactment of the Radiation
15 Exposure Compensation Act Amendments of
16 2021 and submits a request under subpara-
17 graph (A), the Attorney General shall—

18 “(i) pay the claimant the amount that
19 is equal to any excess of—

20 “(I) the amount the claimant is
21 eligible to receive under this Act (as
22 amended by the Radiation Exposure
23 Compensation Act Amendments of
24 2021); minus

1 “(II) the aggregate amount paid
2 to the claimant under this Act before
3 the date of enactment of the Radi-
4 ation Exposure Compensation Act
5 Amendments of 2021; and

6 “(ii) in any case in which the claimant
7 was compensated under section 4, provide
8 the claimant with medical benefits under
9 section 4(a)(5).”.

10 **SEC. 8. GRANT PROGRAM ON EPIDEMIOLOGICAL IMPACTS**
11 **OF URANIUM MINING AND MILLING.**

12 (a) DEFINITIONS.—In this section—

13 (1) the term “institution of higher education”
14 has the meaning given under section 101 of the
15 Higher Education Act of 1965 (20 U.S.C. 1001);

16 (2) the term “program” means the grant pro-
17 gram established under subsection (b); and

18 (3) the term “Secretary” means the Secretary
19 of Health and Human Services.

20 (b) ESTABLISHMENT.—The Secretary shall establish
21 a grant program relating to the epidemiological impacts
22 of uranium mining and milling. Grants awarded under the
23 program shall be used for the study of the epidemiological
24 impacts of uranium mining and milling among non-occu-

1 pationally exposed individuals, including family members
2 of uranium miners and millers.

3 (c) ADMINISTRATION.—The Secretary shall admin-
4 ister the program through the National Institute of Envi-
5 ronmental Health Sciences.

6 (d) ELIGIBILITY AND APPLICATION.—Any institution
7 of higher education or nonprofit private entity shall be eli-
8 gible to apply for a grant. To apply for a grant an eligible
9 institution or entity shall submit to the Secretary an appli-
10 cation at such time, in such manner, and containing or
11 accompanied by such information as the Secretary may
12 reasonably require.

13 (e) AUTHORIZATION OF APPROPRIATIONS.—There
14 are authorized to be appropriated to carry out this section
15 \$3,000,000 for each of fiscal years 2022 through 2024.

16 **SEC. 9. ENERGY EMPLOYEES OCCUPATIONAL ILLNESS**
17 **COMPENSATION PROGRAM.**

18 (a) COVERED EMPLOYEES WITH CANCER.—Section
19 3621(9) of the Energy Employees Occupational Illness
20 Compensation Program Act of 2000 (42 U.S.C. 73841(9))
21 is amended by striking subparagraph (A) and inserting
22 the following:

23 “(A) An individual with a specified cancer
24 who is a member of the Special Exposure Co-
25 hort, if and only if—

1 “(i) that individual contracted that
2 specified cancer after beginning employ-
3 ment at a Department of Energy facility
4 (in the case of a Department of Energy
5 employee or Department of Energy con-
6 tractor employee) or at an atomic weapons
7 employer facility (in the case of an atomic
8 weapons employee); or

9 “(ii) that individual—

10 “(I) contracted that specified
11 cancer after beginning employment in
12 a uranium mine or uranium mill de-
13 scribed under section 5(a)(1)(A)(i) of
14 the Radiation Exposure Compensation
15 Act (42 U.S.C. 2210 note) (including
16 any individual who was employed in
17 core drilling or the transport of ura-
18 nium ore or vanadium-uranium ore
19 from such mine or mill) located in
20 Colorado, New Mexico, Arizona, Wyo-
21 ming, South Dakota, Washington,
22 Utah, Idaho, North Dakota, Oregon,
23 Texas, or any State the Attorney Gen-
24 eral makes a determination under sec-
25 tion 5(a)(2) of that Act for inclusion

1 of eligibility under section 5(a)(1) of
2 that Act; and

3 “(II) was employed in a uranium
4 mine or uranium mill described under
5 subclause (I) (including any individual
6 who was employed in core drilling or
7 the transport of uranium ore or vana-
8 dium-uranium ore from such mine or
9 mill) at any time during the period
10 beginning on January 1, 1942, and
11 ending on December 31, 1990.”.

12 (b) MEMBERS OF SPECIAL EXPOSURE COHORT.—
13 Section 3626 of the Energy Employees Occupational Ill-
14 ness Compensation Program Act of 2000 (42 U.S.C.
15 7384q) is amended—

16 (1) in subsection (a), by striking paragraph (1)
17 and inserting the following:

18 “(1) The Advisory Board on Radiation and
19 Worker Health under section 3624 shall advise the
20 President whether there is a class of employees—

21 “(A) at any Department of Energy facility
22 who likely were exposed to radiation at that fa-
23 cility but for whom it is not feasible to estimate
24 with sufficient accuracy the radiation dose they
25 received; and

1 “(B) employed in a uranium mine or ura-
2 nium mill described under section 5(a)(1)(A)(i)
3 of the Radiation Exposure Compensation Act
4 (42 U.S.C. 2210 note) (including any individual
5 who was employed in core drilling or the trans-
6 port of uranium ore or vanadium-uranium ore
7 from such mine or mill) located in Colorado,
8 New Mexico, Arizona, Wyoming, South Dakota,
9 Washington, Utah, Idaho, North Dakota, Or-
10 regon, Texas, and any State the Attorney Gen-
11 eral makes a determination under section
12 5(a)(2) of that Act for inclusion of eligibility
13 under section 5(a)(1) of that Act, at any time
14 during the period beginning on January 1,
15 1942, and ending on December 31, 1990, who
16 likely were exposed to radiation at that mine or
17 mill but for whom it is not feasible to estimate
18 with sufficient accuracy the radiation dose they
19 received.”; and

20 (2) by striking subsection (b) and inserting the
21 following:

22 “(b) DESIGNATION OF ADDITIONAL MEMBERS.—

23 “(1) Subject to the provisions of section
24 3621(14)(C), the members of a class of employees at
25 a Department of Energy facility, or at an atomic

1 weapons employer facility, may be treated as mem-
2 bers of the Special Exposure Cohort for purposes of
3 the compensation program if the President, upon
4 recommendation of the Advisory Board on Radiation
5 and Worker Health, determines that—

6 “(A) it is not feasible to estimate with suf-
7 ficient accuracy the radiation dose that the
8 class received; and

9 “(B) there is a reasonable likelihood that
10 such radiation dose may have endangered the
11 health of members of the class.

12 “(2) Subject to the provisions of section
13 3621(14)(C), the members of a class of employees
14 employed in a uranium mine or uranium mill de-
15 scribed under section 5(a)(1)(A)(i) of the Radiation
16 Exposure Compensation Act (42 U.S.C. 2210 note)
17 (including any individual who was employed in core
18 drilling or the transport of uranium ore or vana-
19 dium-uranium ore from such mine or mill) located in
20 Colorado, New Mexico, Arizona, Wyoming, South
21 Dakota, Washington, Utah, Idaho, North Dakota,
22 Oregon, Texas, and any State the Attorney General
23 makes a determination under section 5(a)(2) of that
24 Act for inclusion of eligibility under section 5(a)(1)
25 of that Act, at any time during the period beginning

1 on January 1, 1942, and ending on December 31,
2 1990, may be treated as members of the Special Ex-
3 posure Cohort for purposes of the compensation pro-
4 gram if the President, upon recommendation of the
5 Advisory Board on Radiation and Worker Health,
6 determines that—

7 “(A) it is not feasible to estimate with suf-
8 ficient accuracy the radiation dose that the
9 class received; and

10 “(B) there is a reasonable likelihood that
11 such radiation dose may have endangered the
12 health of members of the class.”.