



Australian Radiation Protection and Nuclear Safety Regulations 1999

Statutory Rules No. 37, 1999

made under the

Australian Radiation Protection and Nuclear Safety Act 1998

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About this compilation

This compilation

This is a compilation of the *Australian Radiation Protection and Nuclear Safety Regulations 1999* that shows the text of the law as amended and in force on 1 July 2015 (the **compilation date**).

This compilation was prepared on 1 July 2015.

The notes at the end of this compilation (the **endnotes**) include information about amending laws and the amendment history of provisions of the compiled law.

Uncommenced amendments

The effect of uncommenced amendments is not shown in the text of the compiled law. Any uncommenced amendments affecting the law are accessible on ComLaw (www.comlaw.gov.au). The details of amendments made up to, but not commenced at, the compilation date are underlined in the endnotes. For more information on any uncommenced amendments, see the series page on ComLaw for the compiled law.

Application, saving and transitional provisions for provisions and amendments

If the operation of a provision or amendment of the compiled law is affected by an application, saving or transitional provision that is not included in this compilation, details are included in the endnotes.

Modifications

If the compiled law is modified by another law, the compiled law operates as modified but the modification does not amend the text of the law. Accordingly, this compilation does not show the text of the compiled law as modified. For more information on any modifications, see the series page on ComLaw for the compiled law.

Self-repealing provisions

If a provision of the compiled law has been repealed in accordance with a provision of the law, details are included in the endnotes.

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Part 1—Preliminary

1 Name of regulations

These regulations are the *Australian Radiation Protection and Nuclear Safety Regulations 1999*.

2 Commencement

These regulations commence on gazettal.

3 Definitions

Note: A number of expressions used in these regulations are defined in the Act, including the following:

- (a) controlled apparatus;
- (b) controlled facility;
- (c) controlled material;
- (d) controlled person;
- (e) deal with.

In these regulations:

absorbed dose means the energy absorbed per unit mass by matter from ionizing radiation that impinges upon it.

Note: See Annex B to the *Recommendations for Limiting Exposure to Ionizing Radiation*.

Act means the *Australian Radiation Protection and Nuclear Safety Act 1998*.

action level means an intervention level applied to exposure to radiation.

application fee, for a licence, includes the ordinary costs of processing the application for the licence, but does not include any additional expenses that may be incurred by the CEO in respect of

Regulation 3

any peer review or consultancy that the CEO considers necessary for the purpose of deciding whether to issue the licence.

committed effective dose means the effective dose that a person is committed to receive from an intake of radioactive material.

Note: See Annex B to the *Recommendations for Limiting Exposure to Ionizing Radiation*.

Committee means the Radiation Health Committee or the Nuclear Safety Committee.

Council means the Radiation Health and Safety Advisory Council created by section 19 of the Act.

dose includes absorbed dose, equivalent dose or effective dose.

Note: See Annex B to the *Recommendations for Limiting Exposure to Ionizing Radiation*.

effective dose means a measure of dose that takes into account both the type of radiation involved and the radiological sensitivities of the organs and tissues irradiated.

Note: See Annex B to the *Recommendations for Limiting Exposure to Ionizing Radiation*.

equivalent dose means a measure of dose in organs and tissues that takes into account the type of radiation involved.

Note: See Annex B to the *Recommendations for Limiting Exposure to Ionizing Radiation*.

excluded exposure, for the definition of ***occupational exposure***, means the component of exposure which arises from natural background radiation, provided that:

- (a) any relevant action level or levels for the workplace are not exceeded; and
- (b) the CEO does not prohibit the exclusion of that component.

exposure means the circumstance of being exposed to radiation.

external exposure means exposure to radiation from a source outside the human body.

Regulation 3

holder, of a licence, means the controlled person to whom the licence is issued.

irradiator means a device that contains a controlled material that gives a controlled dose of radiation to any target material.

medical exposure means:

- (a) the exposure of a person to radiation received:
 - (i) as a patient undergoing medical diagnosis or therapy; or
 - (ii) as a volunteer in medical research; or
- (b) non-occupational exposure received as a consequence of assisting an exposed patient.

National Standard for Limiting Occupational Exposure to Ionizing Radiation means the document of that title as republished by ARPANSA in 2002 in the single document titled *Recommendations for Limiting Exposure to Ionizing Radiation (1995) and National Standard for Limiting Occupational Exposure to Ionizing Radiation (Radiation Protection Series No. 1)*.

Note: The single document could in 2015 be viewed on ARPANSA's website (<http://www.arpansa.gov.au>).

occupational exposure means exposure of a person to radiation that:

- (a) occurs in the course of the person's work; and
- (b) is not excluded exposure.

public exposure means the exposure of a person to radiation that is neither occupational exposure nor medical exposure.

Recommendations for Limiting Exposure to Ionizing Radiation means the document titled *Recommendations for Limiting Exposure to Ionizing Radiation (1995)*, as republished by ARPANSA in 2002 in the single document titled *Recommendations for Limiting Exposure to Ionizing Radiation (1995) and National Standard for Limiting Occupational Exposure to Ionizing Radiation (Radiation Protection Series No. 1)*.

Note: The single document could in 2015 be viewed on ARPANSA's website (<http://www.arpansa.gov.au>).

Regulation 3A

same location, in relation to a controlled apparatus or controlled material: see subregulation 40D(3).

sealed source means controlled material permanently contained in a capsule, or closely bound in a solid form, that is strong enough to be leak-tight for:

- (a) the intended use of the controlled material; and
- (b) any foreseeable abnormal events likely to affect the controlled material.

unsealed source means controlled material that is not a sealed source.

waste package, in relation to controlled material contained or to be contained in a nuclear waste storage facility or a nuclear waste disposal facility, means the waste form of the controlled material and its container as prepared for handling, transport, storage or disposal.

3A Parent nuclides and progeny nuclides included in secular equilibrium

- (1) For these regulations, in determining the activity of a parent nuclide mentioned in an item in the table in clause 3 of Schedule 2, include the activity of any progeny nuclide mentioned in that item that is included in secular equilibrium with the parent nuclide.

Note: Parent nuclides are also marked ^a in the table in clause 2 of Schedule 2.

- (2) Except for subregulation (1), the activity of a progeny nuclide mentioned in an item in the table in clause 3 of Schedule 2 is taken to be nil when included in secular equilibrium with a parent nuclide mentioned in that item.

Part 2—Controlled apparatus and facilities

Division 1—Controlled apparatus

4 Kinds of apparatus that are controlled apparatus

- (1) ***Controlled apparatus*** is defined in section 13 of the Act, and includes an apparatus, prescribed by the regulations, that produces harmful non-ionizing radiation when energised.
- (2) Apparatus is controlled apparatus if:
 - (a) the apparatus is:
 - (i) a magnetic field non-destructive testing device; or
 - (ii) an induction heater or induction furnace; or
 - (iii) an industrial radiofrequency heater or welder; or
 - (iv) a radiofrequency plasma tube; or
 - (v) microwave or radiofrequency diathermy equipment; or
 - (vi) an industrial microwave or radiofrequency processing system; or
 - (vii) an optical source, other than a laser product, emitting ultraviolet radiation, infrared or visible light; or
 - (viii) a laser product with an accessible emission level more than the accessible emission limit of a Class 3R laser product, as set out in Australian/New Zealand Standard AS/NZS IEC 60825.1:2011 *Safety of laser products, Part 1: Equipment classification and requirements*; or
 - (ix) an optical fibre communication system exceeding Hazard Level 3R, as defined by Australian/New Zealand Standard AS/NZS IEC 60825.2:2011 *Safety of laser products, Part 2: Safety of optical fibre communication systems (OFCS)*; and
 - (b) it produces non-ionizing radiation that could lead to a person being exposed to radiation levels in excess of the exposure limits mentioned in the table in clause 1 of Schedule 1; and

Part 2 Controlled apparatus and facilities

Division 1 Controlled apparatus

Regulation 4

- (c) the excess levels of radiation mentioned in paragraph (b) are readily accessible to persons:
 - (i) in the course of intended operations or procedures of the apparatus; or
 - (ii) under a reasonably foreseeable abnormal event involving the apparatus; or
 - (iii) under a reasonably foreseeable single element failure of the apparatus; or
 - (iv) without the use of tools or other specialised equipment required to remove protective barriers or access panels.
- (3) However, the CEO may declare, in writing, on a case by case basis, that an apparatus covered by subregulation (2) is not a controlled apparatus under that subregulation.

Note: A decision to refuse to make a declaration is reviewable under regulation 66.
- (3A) The CEO must not make a declaration under subregulation (3) unless the CEO is satisfied that:
 - (a) the apparatus does not pose an unacceptable potential hazard to the health and safety of people or to the environment; or
 - (b) it would be inappropriate, in all the circumstances, for the apparatus to be a controlled apparatus.
- (4) The CEO must publish the declaration in the *Gazette* as soon as practicable after making it.

Division 2—Controlled facilities

5 Controlled facility

- (1) **Controlled facility** is defined in section 13 of the Act as a nuclear installation or a prescribed radiation facility.
- (2) **Prescribed radiation facility** is also defined in section 13 as a facility or installation prescribed by the regulations.
- (3) This Division describes prescribed radiation facilities, which will therefore be controlled facilities.

6 Prescribed radiation facility

- (1) A prescribed radiation facility is any of the following:
 - (a) a particle accelerator that:
 - (i) has, or is capable of having, a beam energy greater than 1 MeV; or
 - (ii) can produce neutrons;
 - (b) an irradiator that contains more than 10^{15} Bq of a controlled material;
 - (c) an irradiator that contains more than 10^{13} Bq but not more than 10^{15} Bq of a controlled material and:
 - (i) does not include shielding as an integral part of its construction; or
 - (ii) if it does include shielding as an integral part of its construction—the shielding does not prevent a person from being exposed to the source; or
 - (iii) if it does include shielding as an integral part of its construction—has a source that is not inside shielding during the operation of the irradiator;
 - (d) a facility (other than a nuclear installation) used for the production, processing, use, storage, management or disposal of:

Regulation 6

- (i) unsealed sources for which the result worked out using the steps mentioned in subregulation (2) is greater than 10^6 ; or
 - (ii) sealed sources for which the result worked out using the steps mentioned in subregulation (2) is greater than 10^9 .
- (2) For subparagraphs (1)(d)(i) and (ii), the steps are:
 - (a) divide the activity of each nuclide in the sources by the activity value mentioned in an item in the table in clause 2 of Schedule 2 for the nuclide; and
 - (b) if there is more than 1 nuclide in the sources—add the result for each nuclide worked out under paragraph (a).
- (3) However, the CEO may declare, in writing, on a case by case basis, that a facility is not a prescribed radiation facility.

Note: A decision to refuse to make a declaration is reviewable under regulation 66.
- (3A) The CEO must not make a declaration under subregulation (3) unless the CEO is satisfied that:
 - (a) the facility does not pose an unacceptable potential hazard to the health and safety of people or to the environment; and
 - (b) it would be inappropriate, in all the circumstances, for the facility to be a prescribed radiation facility.
- (4) The CEO must publish the declaration in the *Gazette* as soon as practicable after making it.

Division 2A—Controlled person

6A Prescribed Commonwealth place

For paragraph (d) of the definition of *controlled person* in section 13 of the Act, the place known as Building 64, as shown on site plan drawing No. A3E 111993 dated November 1999, Lucas Heights Science and Research Centre, New Illawarra Road, Lucas Heights, in the local government area of Sutherland, Parish of Eckersley, County of Cumberland, erected on part of the land contained in Certificate of Title folio identifier 1/89876, is a prescribed Commonwealth place.

Division 3—Prescribed activity levels

7 Nuclear installation—prescribed activity level for nuclear waste storage facilities

- (1) For paragraph (c) of the definition of *nuclear installation* in section 13 of the Act, the activity level, for a nuclear waste storage facility that contains, or is designed to contain, controlled materials, is:

- (a) if the facility contains, or is designed to contain, unsealed sources, and the result worked out for a waste package of the unsealed sources, using the steps mentioned in subregulation (2) (the *activity concentration value steps*), is greater than 10^4 —the level at which the result worked out for the unsealed sources in the facility, using the steps mentioned in subregulation (3) (the *activity value steps*), is 10^6 ; or
- (b) if the facility contains, or is designed to contain, sealed sources—the level at which the result worked out for the sealed sources in the facility, using the steps mentioned in subregulation (3) (the *activity value steps*), is 10^{10} .

Note: Under section 13 of the Act, a nuclear waste storage facility with an activity that is greater than the activity level prescribed is a nuclear installation.

- (2) For paragraph (1)(a), the activity concentration value steps are:
- (a) divide the activity of each nuclide in the waste package by the mass of the waste package; and
 - (b) divide the result for each nuclide worked out under paragraph (a) by the activity concentration value mentioned in an item in the table in clause 2 of Schedule 2 for the nuclide; and
 - (c) if there is more than 1 nuclide in the waste package—add the result for each nuclide worked out under paragraph (b).
- (3) For paragraphs (1)(a) and (b), the activity value steps are:

Regulation 8

- (a) divide the activity of each nuclide in the sources in the facility by the activity value mentioned in an item in the table in clause 2 of Schedule 2 for the nuclide; and
- (b) if there is more than 1 nuclide in the sources—add the result for each nuclide worked out under paragraph (a).

8 Nuclear installation—prescribed activity level for nuclear waste disposal facilities

- (1) This regulation applies to a nuclear waste disposal facility if:
 - (a) it contains, or is designed to contain, controlled materials; and
 - (b) the result worked out for a waste package of the controlled materials, using the steps mentioned in subregulation (3) (the *activity concentration value steps*), is greater than 10^2 .
- (2) For paragraph (c) of the definition of *nuclear installation* in section 13 of the Act, the activity level, for a nuclear waste disposal facility to which this regulation applies, is the level at which the result worked out for the controlled materials in the facility, using the steps mentioned in subregulation (4) (the *activity value steps*), is 10^8 .

Note: Under section 13 of the Act, a nuclear waste disposal facility with an activity that is greater than the activity level prescribed is a nuclear installation.

- (3) For paragraph (1)(b), the activity concentration value steps are:
 - (a) divide the activity of each nuclide in the waste package by the mass of the waste package; and
 - (b) divide the result for each nuclide worked out under paragraph (a) by the activity concentration value mentioned in an item in the table in clause 2 of Schedule 2 for the nuclide; and
 - (c) if there is more than 1 nuclide in the waste package—add the result for each nuclide worked out under paragraph (b).
- (4) For subregulation (2), the activity value steps are:

Regulation 11

- (a) divide the activity of each nuclide in the controlled materials in the facility by the activity value mentioned in an item in the table in clause 2 of Schedule 2 for the nuclide; and
- (b) if there is more than 1 nuclide in the controlled materials—add the result for each nuclide worked out under paragraph (a).

11 Nuclear installation—prescribed activity level for facilities for production of radioisotopes

- (1) For paragraph (d) of the definition of *nuclear installation* in section 13 of the Act, the activity level, for a facility for production of radioisotopes, is:
 - (a) if the facility contains, or is designed to contain, unsealed sources—the level at which the result worked out for the unsealed sources using the steps mentioned in subregulation (2) is 10^6 ; or
 - (b) if the facility contains, or is designed to contain, sealed sources—the level at which the result worked out for the sealed sources using the steps mentioned in subregulation (2) is 10^{10} .

Note: Under section 13 of the Act, a facility for production of radioisotopes with an activity that is greater than the activity level prescribed is a nuclear installation.

- (2) For paragraphs (1)(a) and (b), the steps are:
 - (a) divide the activity of each nuclide in the sources by the activity value mentioned in an item in the table in clause 2 of Schedule 2 for the nuclide; and
 - (b) if there is more than 1 nuclide in the sources—add the result for each nuclide worked out under paragraph (a).

Part 3—The radiation health and safety advisory council and advisory committees

Division 1—Radiation Health and Safety Advisory Council

12 Radiation Health and Safety Advisory Council

- (1) The Radiation Health and Safety Advisory Council is established under section 19 of the Act.
- (2) Each member of the Council, other than the CEO, is appointed under subsection 21(2) of the Act.
- (3) The Chair of the Council is appointed under subsection 21(6) of the Act.
- (4) Under section 29 of the Act, the regulations may prescribe matters relating to the Council, including, but not limited to, the term of appointment of members, resignation of members, disclosure of interests by members and procedural matters.
- (5) This Division sets out some of the matters relating to the Council.

13 Term of appointment

- (1) A Council member is appointed for the term stated in the member's appointment.
- (2) The term stated in the appointment must not be greater than 3 years.
- (3) However, a Council member may be reappointed for further terms of up to 3 years.
- (4) The Chair of the Council is appointed as Chair for the term stated in the Chair's appointment.
- (5) The Chair of the Council may be reappointed for further terms.

Regulation 14

14 Resignation

A Council member may resign by signed notice of resignation given to the Minister.

15 Disclosure of interests

A Council member must give written notice to the Minister of all interests, pecuniary or otherwise, that the member has or acquires and that could conflict with the proper performance of the member's functions.

16 Termination of appointment

- (1) The Minister may terminate a Council member's appointment for:
 - (a) physical or mental incapacity; or
 - (b) misbehaviour; or
 - (c) incompetence; or
 - (d) inefficiency; or
 - (e) failing to comply, either recklessly or intentionally, with regulation 15.
- (2) The Minister must terminate the member's appointment if the member:
 - (a) becomes bankrupt; or
 - (b) applies to take the benefit of any law for the relief of bankrupt or insolvent debtors; or
 - (c) compounds with his or her creditors; or
 - (d) assigns his or her remuneration for the benefit of his or her creditors; or
 - (e) is convicted of an offence punishable by imprisonment for 1 year or longer; or
 - (f) is absent without leave of absence from 3 consecutive meetings of the Council.

17 Leave of absence

- (1) The Minister may grant leave of absence to the Chair of the Council.
- (2) The Chair may grant leave of absence to another Council member.

18 Council procedures generally

- (1) In performing its functions, the Council:
 - (a) must act according to these regulations; and
 - (b) must act with as little formality and as quickly as the requirements of these regulations, and a proper consideration of the issues before the Council, allow; and
 - (c) is not bound by the rules of evidence; and
 - (d) may obtain information about an issue in any way it considers appropriate; and
 - (e) may receive information or submissions orally or in writing; and
 - (f) may consult anyone it considers appropriate.
- (2) However, the Council must comply with any directions given, in writing, to the Council by the Minister or the CEO about the Council's performance of its functions.

19 Meetings

- (1) The Minister or the CEO may, by written notice to the Council, direct the Council to hold meetings at the times and places, and to deal with matters in the manner, stated in the notice.
- (2) If the Minister or the CEO has not given written notice to the Council under subregulation (1), the Council may hold the meetings at the times and places, and may deal with matters in the manner, that the Council considers necessary for the performance of its functions.
- (3) Subject to these regulations, the procedure of a Council's meeting is as decided by the Council.

Regulation 20

20 Presiding member

- (1) The Chair must preside at a Council meeting at which the Chair is present.
- (2) If the Chair is absent, the member chosen by the members present must preside.

21 Quorum

At a Council meeting, a majority of members forms a quorum.

22 Voting

A decision made at a Council meeting by a majority of the votes of the members present and voting is a decision of the Council.

23 Records and reports

- (1) The Council must keep a record of its proceedings.
- (2) The Council must prepare an annual report for the CEO on the Council's activities for the year.
- (3) The Council must prepare any other report that is requested by the Minister or the CEO.

Division 2—Radiation Health Committee and Nuclear Safety Committee

24 Radiation Health Committee and Nuclear Safety Committee

- (1) The Radiation Health Committee is established under section 22 of the Act and the Nuclear Safety Committee is established under section 25 of the Act.
- (2) Each member of the Radiation Health Committee, other than the CEO, is appointed under subsection 24(2) of the Act and the Chair of that Committee is appointed under subsection 24(6) of the Act.
- (3) Each member of the Nuclear Safety Committee, other than the CEO, is appointed under subsection 27(2) of the Act and the Chair of that Committee is appointed under subsection 27(6) of the Act.
- (4) Under section 29 of the Act, the regulations may prescribe matters relating to the Radiation Health Committee and the Nuclear Safety Committee, including, but not limited to, the term of appointment of members, resignation of members, disclosure of interests by members and procedural matters.
- (5) This Division sets out some of the matters relating to the Committees.

25 Term of appointment

- (1) A Committee member is appointed for the term stated in the member's appointment.
- (2) The term stated in the appointment must not be greater than 3 years.
- (3) However, a Committee member may be reappointed for further terms of up to 3 years.
- (4) The Chair of a Committee is appointed as Chair for the term stated in the Chair's appointment.

Regulation 26

- (5) The Chair of a Committee may be reappointed for further terms.

26 Resignation

A Committee member may resign by signed notice of resignation given to the CEO.

27 Disclosure of interests

A Committee member must give written notice to the CEO of all interests, pecuniary or otherwise, that the member has or acquires and that could conflict with the proper performance of the member's functions.

28 Termination of appointment

- (1) The CEO may terminate a Committee member's appointment for:
- (a) physical or mental incapacity; or
 - (b) misbehaviour; or
 - (c) incompetence; or
 - (d) inefficiency; or
 - (e) failing to comply, either recklessly or intentionally, with regulation 27.
- (2) The CEO must terminate a Committee member's appointment if the member:
- (a) becomes bankrupt; or
 - (b) applies to take the benefit of any law for the relief of bankrupt or insolvent debtors; or
 - (c) compounds with his or her creditors; or
 - (d) assigns his or her remuneration for the benefit of his or her creditors; or
 - (e) is convicted of an offence punishable by imprisonment for 1 year or longer; or
 - (f) is absent without leave of absence from 3 consecutive meetings of the Committee.

29 Leave of absence

- (1) The CEO may grant leave of absence to the Chair of a Committee.
- (2) The Chair may grant leave of absence to another Committee member.

30 Committee procedures generally

- (1) In performing its functions, a Committee:
 - (a) must act according to these regulations; and
 - (b) must act with as little formality and as quickly as the requirements of these regulations, and a proper consideration of the issues before the Committee, allow; and
 - (c) is not bound by the rules of evidence; and
 - (d) may obtain information about an issue in any way it considers appropriate; and
 - (e) may receive information or submissions orally or in writing; and
 - (f) may consult anyone it considers appropriate.
- (2) However, the Committee must comply with any directions given, in writing, to the Committee by the CEO or the Council about the Committee's performance of its functions.

31 Meetings

- (1) The CEO or the Council may, by written notice to the Committee, direct the Committee to hold meetings at the times and places, and to deal with matters in the manner, stated in the notice.
- (2) If the CEO or the Council has not given written notice to the Committee under subregulation (1), the Committee may hold the meetings at the times and places, and may deal with matters in the manner, that the Committee considers necessary for the performance of its functions.
- (3) Subject to these regulations, the procedure of a Committee's meeting is as decided by the Committee.

Regulation 32

32 Presiding member

- (1) The Chair must preside at a Committee meeting at which the Chair is present.
- (2) If the Chair is absent, the member chosen by the members present must preside.

33 Quorum

At a Committee meeting, a majority of members forms a quorum.

34 Voting

A decision made at a Committee meeting by a majority of the votes of the members present and voting is a decision of the Committee.

35 Records and reports

- (1) A Committee must keep a record of its proceedings.
- (2) A Committee must prepare any report that is requested by the CEO or the Council.
- (3) If a Committee prepares a report on any matter, it must give copies of the report to the CEO and to the Chair of the Council.

Part 4—Licences

Division 1—Exemptions

37 Exempt people (facility licence)

- (1) The CEO may declare, in writing, on a case by case basis, that conduct of a kind mentioned in paragraph 30(1)(a), (b), (c), (d) or (e) of the Act by a specified controlled person in relation to a specified controlled facility (including any future conduct by the controlled person in relation to the controlled facility) does not, or will not pose, an unacceptable potential hazard to the health and safety of people or to the environment.

Note: A decision to refuse to make a declaration is reviewable under regulation 66.

- (2) The CEO may also state in the declaration that:
 - (a) the declaration has effect only if circumstances mentioned in the declaration exist; or
 - (b) the declaration does not have effect if circumstances mentioned in the declaration exist.
- (3) The CEO must publish the declaration in the *Gazette* as soon as practicable after making it.
- (4) For paragraph 30(1)(g) of the Act, a controlled person is exempted in relation to conduct of a kind mentioned in paragraph 30(1)(a), (b), (c), (d) or (e) of the Act in relation to a controlled facility if:
 - (a) the controlled person, the kind of conduct and the controlled facility are specified in a declaration that is made and published under this regulation; and
 - (b) the declaration is in effect at the time the conduct is undertaken.

Regulation 37A

37A Notice of intention to make a declaration

- (1) Before making a declaration under subregulation 37(1), the CEO must publish in the *Gazette* a notice of his or her intention to make the declaration.
- (2) The notice must include:
 - (a) a copy of the proposed declaration; or
 - (b) a description of the controlled person, the kind of conduct and the controlled facility that are to be the subject of the declaration, and the text of any statements permitted under subregulation 37(2).

38 Prescribed dealings (source licence)

- (1) For paragraph 31(1)(b) of the Act, a dealing that is described in an item in the table in clause 1 of Schedule 2 is an exempt dealing.
- (3) However, the CEO may declare, in writing, on a case by case basis, that a dealing described in an item in the table in clause 1 of Schedule 2 is a dealing for which:
 - (a) the annual effective dose to an individual during normal operations is likely to be greater than 10 micro.Sv; or
 - (b) an accident, misuse or exceptional circumstance affecting the dealing is likely to produce a dose greater than the effective dose limit worked out under regulation 59 or 60.

Note: A decision to refuse to make a declaration is reviewable under regulation 66.

- (4) A dealing mentioned in a declaration under subregulation (3) is not exempt.
- (5) Also, the CEO may declare, in writing, on a case by case basis, that a dealing that is not described in an item in the table in clause 1 of Schedule 2 is a dealing for which:
 - (a) the annual effective dose to an individual during normal operations is likely to be not more than 10 micro.Sv; or

Regulation 38

- (b) an accident, misuse or exceptional circumstance affecting the dealing is not likely to produce a dose greater than the effective dose limit worked out under regulation 59 or 60.

Note: A decision to refuse to make a declaration is reviewable under regulation 66.

- (6) Also, the CEO may declare, in writing, on a case by case basis, that:
 - (a) a dealing that is not described in an item in the table in clause 1 of Schedule 2 is a dealing involving:
 - (i) a radiological emergency or its after effects; or
 - (ii) the after effects of a previous dealing; or
 - (iii) naturally occurring materials; or
 - (iv) bulk material with a mass of more than 1,000 kg; and
 - (b) an assessment of the magnitude of individual doses, the number of people exposed, and the likelihood that potential exposure will actually occur, justify the dealing being exempt.

Note: A decision to refuse to make a declaration is reviewable under regulation 66.

- (7) A dealing is exempt if it is mentioned in a declaration for subregulation (5) or (6).
- (8) The CEO must publish a declaration under subregulation (3), (5) or (6) in the *Gazette* as soon as practicable after making it.

Division 2—Applications for licences

39 Application form

- (1) Under paragraph 34(a) of the Act, an application for a facility licence, or a source licence, must be in a form approved by the CEO.
- (2) The CEO may ask an applicant for a facility licence to give:
 - (a) some or all of the information and documents mentioned in the table in clause 1 of Schedule 3; and
 - (b) other information about the application if it is appropriate.
- (3) The CEO may ask an applicant for a source licence to give:
 - (a) some or all of the information and documents mentioned in the table in clause 2 of Schedule 3; and
 - (b) other information about the application if it is appropriate.
- (4) An application made for a Department or Commonwealth body must be made:
 - (a) in the name of the Department or body; and
 - (b) by:
 - (i) the Secretary, chief executive, or an equivalent person for the Department or body; or
 - (ii) another person authorised by the Secretary, chief executive or equivalent person.

40 Issue of facility licence—prior notice and consultation

- (1) This regulation applies if the CEO receives an application for a facility licence.
- (2) As soon as practicable after receiving the application, the CEO must publish a notice in a daily newspaper circulating nationally, and in the *Gazette*, stating that the CEO intends to make a decision on the application.

- (3) If the application relates to a nuclear installation, the CEO must also include in the notice:
- (a) an invitation to people and bodies to make submissions about the application; and
 - (b) a period for making submissions; and
 - (c) procedures for making submissions.

Division 2A—Licence application fees

40A Purpose of Division 2A

For paragraph 34(b) of the Act, this Division prescribes:

- (a) the fee that must accompany an application for a facility licence; and
- (b) the fee that must accompany an application for a source licence.

40B Facility licences—nuclear installations

- (1) This regulation applies to an application for a facility licence that authorises persons to do a thing mentioned in an item in the table in clause 1 of Schedule 3A in relation to a controlled facility that is a nuclear installation.
- (2) The amount of the application fee for the licence is the amount mentioned in the item.

40C Facility licences—prescribed radiation facilities

- (1) This regulation applies to an application for a facility licence that authorises persons to do a thing mentioned in paragraph 30(1)(a), (b), (c), (d) or (e) of the Act in relation to a controlled facility that is a prescribed radiation facility of a kind mentioned in an item in the table in clause 1 of Schedule 3B.
- (2) The amount of the application fee for the licence is:
 - (a) subject to paragraph (b) and subregulation (3), the amount mentioned in the item mentioned in subregulation (1); or
 - (b) if the thing authorised to be done by the licence is mentioned in an item in the table in clause 2 of Schedule 3B (the **clause 2 item**)—the amount mentioned in the clause 2 item.
- (3) If the application is for a licence that authorises persons to do 2 or more of the things mentioned in paragraphs 30(1)(a), (b), (c), (d)

and (e) of the Act in relation to the controlled facility, the amount of the application fee for the licence is the sum of the amounts of the application fees that would have been applicable under subregulation (2) if applications for separate licences had been made for each of those things.

40D Source licences

- (1) This regulation applies to an application for a source licence that authorises persons to deal with a controlled apparatus or a controlled material of a kind mentioned in an item in a Group in the table in clause 1 of Schedule 3C.
- (2) The amount of the application fee for the licence is:
 - (a) for an application for a licence to deal with controlled apparatus or controlled materials in the same location:
 - (i) if the controlled apparatus or controlled materials are from the same Group—the amount mentioned in the item in the table in clause 2 of Schedule 3C that relates to the number of controlled apparatus or controlled materials from that Group; and
 - (ii) if the controlled apparatus or controlled materials are from 2 or more Groups—the sum of the amounts mentioned in the items in the table in clause 2 of Schedule 3C that relate to the number of controlled apparatus or controlled materials from each of those Groups; and
 - (b) for an application for a licence to deal with controlled apparatus or controlled materials in 2 or more locations—the sum of the amounts mentioned in the items in the table in clause 2 of Schedule 3C that relate to the number of controlled apparatus or controlled materials from each Group that are to be dealt with in each location.
- (3) A controlled apparatus or controlled material (the ***first controlled apparatus or controlled material***) is in the ***same location*** as another controlled apparatus or controlled material (the ***other controlled apparatus or controlled material***) if the first controlled

Part 4 Licences

Division 2A Licence application fees

Regulation 40D

apparatus or controlled material is in an area within a radius of 5 kilometres of the other controlled apparatus or controlled material.

Division 3—Deciding whether to issue licence

41 Issue of facility licence—matters to be taken into account by CEO

- (1) The CEO may issue a facility licence to a controlled person.
- (2) In deciding whether to issue the licence, the CEO must take into account the matters (if any) specified in the regulations.
- (3) The matters are:
 - (a) whether the application includes the information asked for by the CEO; and
 - (b) whether the information establishes that the proposed conduct can be carried out without undue risk to the health and safety of people, and to the environment; and
 - (c) whether the applicant has shown that there is a net benefit from carrying out the conduct relating to the controlled facility; and
 - (d) whether the applicant has shown that the magnitude of individual doses, the number of people exposed, and the likelihood that exposure will happen, are as low as reasonably achievable, having regard to economic and social factors; and
 - (e) whether the applicant has shown a capacity for complying with these regulations and the licence conditions that would be imposed under section 35 of the Act; and
 - (f) whether the application has been signed by an office holder of the applicant, or a person authorised by an office holder of the applicant; and
 - (g) if the application is for a facility licence for a nuclear installation—the content of any submissions made by members of the public about the application.

42 Issue of source licence—matters to be taken into account by CEO

- (1) The CEO may issue a source licence to a controlled person.
- (2) In deciding whether to issue the licence, the CEO must take into account the matters (if any) specified in the regulations.
- (3) The matters are:
 - (a) whether the application includes the information asked for by the CEO; and
 - (b) whether the information establishes that the controlled apparatus or material can be dealt with without undue risk to the health and safety of people, and to the environment; and
 - (c) whether the applicant has shown that there is a net benefit from dealing with the controlled apparatus or material; and
 - (d) whether the applicant has shown that the magnitude of individual doses, the number of people exposed, and the likelihood that exposure will happen, are as low as reasonably achievable, having regard to economic and social factors; and
 - (e) whether the applicant has shown a capacity for complying with these regulations and the licence conditions that would be imposed under section 35 of the Act; and
 - (f) whether the application has been signed by an office holder of the applicant, or a person authorised by an office holder of the applicant.

Division 4—Licence conditions

43 Purpose of Division

- (1) Under paragraph 35(1)(b) of the Act, a facility or source licence is subject to the conditions prescribed by the regulations.
- (2) This Division prescribes the conditions.

44 Holder of a licence must prevent breaches of conditions

The holder of a licence must take all reasonably practicable steps to prevent breaches of licence conditions.

45 Holder of a licence must investigate and rectify breaches of conditions

- (1) The holder of a licence must investigate suspected breaches of licence conditions.
- (2) If the holder of a licence identifies a breach, the holder of a licence must rectify the breach and any consequences of the breach as soon as reasonably practicable.
- (3) If the holder of a licence identifies a breach, the holder of a licence must also tell the CEO as soon as reasonably practicable.

46 Holder of a licence to prevent, control and minimise accidents

- (1) The holder of a licence must take all reasonably practicable steps to prevent accidents involving controlled materials, controlled apparatus or controlled facilities described in the licence.
- (2) If an accident mentioned in subregulation (1) happens, the holder of a licence must:
 - (a) take all reasonably practicable steps to control the accident;
and

Regulation 48

- (b) take all reasonably practicable steps to minimise the consequences of the accident, including injury to any person and damage or harm to the environment; and
- (c) tell the CEO about the accident within 24 hours of it happening; and
- (d) give the CEO a written report about the accident within 14 days of it happening.

48 Compliance with Recommendations and Codes of Practice

- (1) This regulation does not apply to conduct and dealings with controlled apparatus of a kind mentioned in regulation 4.

Note: Regulation 4 describes kinds of apparatus that are controlled apparatus.

- (2) The holder of a source licence or a facility licence must ensure that all conduct and dealings with controlled materials, controlled apparatus and controlled facilities are in accordance with the following (as existing on 1 July 2015):

- (a) the *Code of Practice for the Security of Radioactive Sources (2007) (Radiation Protection Series No. 11)*;
- (b) the *Recommendations for Limiting Exposure to Ionizing Radiation*;
- (c) the *National Standard for Limiting Occupational Exposure to Ionizing Radiation*;
- (d) the *Code for the Safe Transport of Radioactive Material (2014) (Radiation Protection Series C-2)*.

Note: These documents could in 2015 be viewed on ARPANSA's website (<http://www.arpansa.gov.au>).

- (3) The holder of a source licence or a facility licence must also ensure that dealings with the disposal of controlled material and controlled apparatus are in accordance with the following (as existing on 1 July 2015):

- (a) the *Code of Practice for the Disposal of Radioactive Waste by the User (1985)*, published by the National Health and Medical Research Council;

Regulation 49

- (b) the *Code of Practice for the Near-Surface Disposal of Radioactive Waste in Australia (1992)*, published by the National Health and Medical Research Council;
- (c) the *Code for the Safe Transport of Radioactive Material (2014) (Radiation Protection Series C-2)*;
- (d) the *Code of Practice for the Security of Radioactive Sources (2007) (Radiation Protection Series No. 11)*.

Note: These codes could in 2015 be viewed on ARPANSA's website (<http://www.arpansa.gov.au>).

49 Managing safety

- (1) The holder of a facility licence must take all reasonably practicable steps to manage the safety of the facility, including:
 - (a) having in place plans and arrangements of the kind mentioned in item 4 of the table in clause 1 of Schedule 3; and
 - (b) ensuring that such plans and arrangements are implemented to the extent reasonably practicable.
- (2) The holder of a source licence must take all reasonably practicable steps to manage the safety of the source, including:
 - (a) having in place plans and arrangements of the kind mentioned in item 4 of the table in clause 2 of Schedule 3; and
 - (b) ensuring that such plans and arrangements are implemented to the extent reasonably practicable.

50 Reviewing and updating plans and arrangements for managing safety

- (1) The holder of a licence must, at least once every 3 years, review and update the plans and arrangements mentioned in regulation 49 in relation to the licence.
- (2) The holder of a licence must keep and maintain records of any changes made to the plans and arrangements.

Regulation 51

- (3) Subregulation (1) does not apply to the extent that the licence makes other arrangements for a matter mentioned in that subregulation.

51 CEO approval for certain changes

The holder of a licence must seek the CEO's prior approval to do either of the following things if it will have significant implications for safety:

- (a) change the details in the application for the licence;
- (b) modify the source or facility mentioned in the licence.

52 Holder of a licence must tell CEO about other changes

- (1) The holder of a licence may do a thing mentioned in paragraph 51(a) or (b) that is unlikely to have significant implications for safety without the CEO's approval.
- (2) The holder of a licence must, within 3 months after doing a thing as mentioned in subregulation (1), tell the CEO about the thing.
- (3) However, subregulation (2) does not apply to the extent that the licence makes other arrangements for a matter mentioned in that subregulation.

53 Holder of a licence must tell CEO about movement of controlled apparatus, controlled materials and controlled facilities

- (1) The holder of a licence may only dispose of controlled apparatus or controlled materials with the approval of the CEO.
- (1A) The holder of a licence may only transfer controlled apparatus or controlled materials to another person (the *transferee*):
 - (a) with the approval of the CEO; or
 - (b) if both of the following apply:
 - (i) the transferee is the holder of a facility licence or a source licence;

- (ii) the transferee's licence authorises the transferee to receive the controlled apparatus or controlled materials.
- (2) If the holder of a licence (the ***transferor***) transfers controlled apparatus or controlled materials to another person (the ***transferee***) under paragraph (1A)(b), the transferor must, within 7 days of the transfer, tell the CEO:
 - (a) that the transfer has happened; and
 - (b) the name of the transferee; and
 - (c) the number of the licence held by the transferee; and
 - (d) the location of the controlled apparatus or controlled materials after the transfer.
- (3) The holder of a licence must not dispose of, or transfer to the possession of another person, a controlled facility without the CEO's approval.
- (4) However, subregulations (1), (1A), (2) and (3) do not apply to the extent that the licence makes other arrangements for a matter mentioned in the subregulations.

54 Approval required to construct safety item

The holder of a licence, or a person covered by a licence, must not construct an item that is important for safety, and that is identified in a safety analysis report, as part of the construction of a controlled facility, unless the CEO has given the holder, or the person, approval to construct the item.

55 Approval required to load nuclear fuel

The holder of a licence, or a person covered by a licence, must not load nuclear fuel into a controlled facility, as part of the construction of the facility, unless the CEO has given the holder, or the person, approval to load the fuel.

Division 5—Licence annual charges

55A Time for payment of annual charge

The annual charge for a facility licence or a source licence must be paid:

- (a) for a licence held during the financial year ending on 30 June 2000—on or before 30 days after the commencement of this regulation; and
- (b) for a licence held during the financial year ending on 30 June 2001—on or before the later of:
 - (i) 30 days after the commencement of this regulation; and
 - (ii) 30 days after the date when the licence was issued; and
- (c) for a licence held during a later financial year—on or before the later of:
 - (i) 31 July in that financial year; and
 - (ii) 30 days after the date when the licence was issued.

55B Pro-rating of annual charge

- (1) If a facility licence or source licence is not held during the whole of a financial year, the CEO may decide to make a pro-rata adjustment of the amount of the annual charge for the licence for the year.
- (2) If the CEO decides to make a pro-rata adjustment, the amount of the annual charge is:

$$AC \times \frac{M}{12}$$

where:

AC is the amount of the annual charge for the licence for the year.

M is the number of calendar months during which the licence is held.

Regulation 55C

Note: The amount of the annual charge for a facility licence or a source licence for a year is prescribed in the *Australian Radiation Protection and Nuclear Safety (Licence Charges) Regulations 2000*.

- (3) For subregulation (2), a licence that is held for only part of a calendar month is taken to be held for the whole of the calendar month.

55C Refund of annual charge

- (1) This regulation applies in relation to the annual charge for a facility licence or a source licence for a financial year if:
- (a) the whole, or part, of the annual charge for the licence for the year has been paid; and
 - (b) the licence is suspended, cancelled or surrendered before the end of the year.
- (2) The CEO may decide to refund to the holder of the licence part of the amount of the annual charge that has been paid for the licence for the year.
- (3) If the CEO decides to refund part of the amount of the annual charge, the amount of the refund is:

$$AC \times \frac{12 - M}{12}$$

where:

AC is the amount of the annual charge for the licence for the year.

M is the number of calendar months during which the licence was held.

Note: The amount of the annual charge for a facility licence or a source licence for a year is prescribed in the *Australian Radiation Protection and Nuclear Safety (Licence Charges) Regulations 2000*.

- (4) For subregulation (3), a licence that is held for only part of a calendar month is taken to be held for the whole of the calendar month.

Part 5—Practices and procedures to be followed

Division 5.1—General

56 Application of Part 5

This Part applies only to the extent that:

- (a) a holder of a licence, or a person covered by a licence, can comply with the licence without taking action that would constitute unlawful discrimination under the *Sex Discrimination Act 1984*; or
- (b) a holder of a licence, or a person covered by a licence, who cannot comply with the licence without taking action that would constitute unlawful discrimination under the *Sex Discrimination Act 1984* is exempted, under section 44 of that Act, from its operation.

Division 5.2—Dose limits**57 Purpose of Division 5.2**

For paragraph 85(2)(a) of the Act, this Division prescribes practices and procedures to be followed, and measures to be taken, in relation to dose limits by controlled persons in relation to activities relating to controlled facilities, and in relation to dealings with controlled apparatus or controlled material.

58 Prescribed practice

- (1) The holder of a facility licence for a controlled facility must ensure that the doses to which a person is exposed, inside or in connection with the facility, do not exceed the effective dose limits mentioned in regulation 59, and the equivalent dose limits mentioned in regulation 62.
- (3) The holder of a source licence for dealing with controlled apparatus or controlled material must ensure that the doses to which a person is exposed while the source in the apparatus or material is under the holder's control do not exceed the effective dose limits mentioned in regulation 59, and the equivalent dose limits mentioned in regulation 62.
- (4) The holder of a licence must ensure that radiation protection and safety of the following relating to the licence are optimised in order to achieve the outcome mentioned in subregulation (4A):
 - (a) controlled material;
 - (b) controlled apparatus (other than apparatus prescribed by these regulations that produce harmful non-ionizing radiation when energised);
 - (c) a controlled facility.
- (4A) For subregulation (4), the outcome is that the following are as low as reasonably achievable after taking into account economic and societal factors:

Regulation 59

- (a) the magnitude of individual doses;
 - (b) the number of people who are exposed;
 - (c) the likelihood of incurring exposures to radiation.
- (5) The optimisation of radiation protection and safety mentioned in subregulation (4) must be in accordance with source-related dose constraints established in accordance with the *Recommendations for Limiting Exposure to Ionizing Radiation* and *National Standard for Limiting Occupational Exposure to Ionizing Radiation* and agreed by the CEO.
- (6) For apparatus prescribed by these regulations that produce harmful non-ionising radiation when energised, the holder of a licence must ensure that exposure to people is kept to the lowest level that can be achieved, consistent with best practice.

59 Effective dose limits

- (1) The effective dose limit for occupational exposure is 20 mSv annually, averaged over 5 consecutive calendar years.
- (2) However, the effective dose for a person subject to occupational exposure must not, in a year, be greater than 50 mSv.
- (3) The effective dose limit for public exposure is 1 mSv annually.
- (4) The effective dose limit for an unborn child is to be consistent with the effective dose limit for public exposure.

Note: For the obligation imposed on female employees who are pregnant, see the *National Standard for Limiting Occupational Exposure to Ionizing Radiation*.

60 Effective doses

- (1) For regulation 59, a person's effective dose for a relevant period is the sum of:
 - (a) the effective dose that the person receives, from external exposure, during the relevant period; and

Regulation 61

- (b) the person's committed effective dose, received from intakes during the relevant period, for the next 50 years.
- (2) However, if the person is under 18, the committed effective dose must be worked out on the basis of the number of years calculated by subtracting the person's age, at the time of the calculation, from 70.
- (3) For subregulation (1), a *relevant period* is:
 - (a) for a controlled person—5 years; or
 - (b) for a member of the public—1 year.

61 Dealings with controlled apparatus generating non-ionizing radiation

The holder of a source licence must ensure that all dealings with controlled apparatus generating non-ionizing radiation comply with the appropriate exposure limits set out in the standards and codes mentioned in the table in clause 1 of Schedule 1.

62 Annual equivalent dose limit

- (1) For occupational exposure, the equivalent dose limit to the lens of the eye is 20 mSv annually, averaged over 5 consecutive calendar years.
- (1A) However, the equivalent dose to the lens of the eye for a person subject to occupational exposure must not, in a year, be greater than 50 mSv.
- (1B) The equivalent dose to the lens of the eye for a person subject to public exposure must not, in a year, be greater than 15 mSv.
- (2) For occupational exposure, the annual equivalent dose limit to the hands and feet is 500 mSv.
- (3) The annual equivalent dose limit to the skin is:
 - (a) for occupational exposure—500 mSv; and
 - (b) for public exposure—50 mSv.

Part 5 Practices and procedures to be followed

Division 5.2 Dose limits

Regulation 62

- (4) The annual equivalent dose limit to the skin applies to the average dose received by any 1 cm² of skin.

Division 5.3—Practices and procedures

62A Practices and procedures

- (1) For paragraph 85(2)(a) of the Act, the practices and procedures described in the codes mentioned in subregulation (2) must, to the extent that they are relevant, be followed by controlled persons in relation to activities relating to controlled facilities, and in relation to dealings with controlled apparatus or controlled material.
- (2) For subregulation (1), the codes are as follows (as existing on 1 July 2015):
 - (a) the *Code of Practice for the Security of Radioactive Sources (2007) (Radiation Protection Series No. 11)*;
 - (b) the *Code of Practice and Safety Guide for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing (2005) (Radiation Protection Series No. 9)*;
 - (c) the *Code for the Safe Transport of Radioactive Material (2014) (Radiation Protection Series C-2)*.

Note: These codes could in 2015 be viewed on ARPANSA's website (<http://www.arpansa.gov.au>).

Part 6—Reporting and inspection for controlled facilities, apparatus and materials

63 Reporting guidelines to be published by CEO

- (1) For paragraph 15(1)(i) of the Act, the CEO must make guidelines about:
 - (a) how the CEO will report on the operations of the Agency; and
 - (b) how licence holders will report their compliance with the Act, these regulations and licence conditions; and
 - (c) how inspection of controlled facilities, controlled apparatus and controlled materials will be conducted.
- (2) The CEO must publish a draft of the guidelines, and invite public comments on the draft, within 12 months of the commencement of these regulations.

Note: These regulations commence on gazettal: see regulation 2.

64 Inspector's identity card

- (1) Under subsection 62(1) of the Act, the CEO may appoint certain people as inspectors.
- (2) Under subsection 62(3) of the Act, the CEO must issue an identity card to an inspector, in the form prescribed by the regulations.
- (3) The identity card must be in the form set out in Schedule 4.

Part 7—Miscellaneous

65 International agreements

For paragraph 84(3)(b) of the Act, each international agreement mentioned in Schedule 5 is prescribed.

65A Non-applicable State and Territory laws

For section 83 of the Act, each State or Territory law, or provision of each State or Territory law, mentioned in Schedule 6 is prescribed.

66 Review of decisions by CEO

- (1) A controlled person who is affected by a decision of the CEO to refuse to make a declaration under subregulation 4(3), 6(3), 37(1), 38(3), 38(5) or 38(6) may request that the Minister reconsider the CEO's decision.
- (2) The request must be:
 - (a) in writing; and
 - (b) given to the Minister within 90 days after the making of the decision.
- (3) The Minister must reconsider the CEO's decision and confirm, vary or set aside the decision.

Note: Under section 27A of the *Administrative Appeals Tribunal Act 1975*, the Minister must give, to any person whose interests are affected by the decision, notice, in writing or otherwise, of the making of the decision and of the person's right to have the decision reviewed. In giving that notice, the Minister must have regard to the Code of Practice determined under section 27B of that Act (Gazette No. S 432, 7 December 1994) and available at <http://www.comlaw.gov.au> (registration number F2006B11660).

- (4) The Minister is taken to have confirmed the CEO's decision under subregulation (3) if the Minister does not give written notice of the

Regulation 66

Minister's decision under that subregulation within 60 days after the request is received.

- (5) Application may be made to the Administrative Appeals Tribunal for review of a decision of the Minister under subregulation (3) to confirm, vary or set aside the CEO's decision.

Schedule 1—Exposure limits for non-ionizing radiation

(regulations 4 and 61)

1 Exposure limits for non-ionizing radiation

The following table sets out exposure limits for non-ionizing radiation.

Exposure limits for non-ionizing radiation	
Item	Exposure limits
1	The exposure limits mentioned in the <i>Interim guidelines on limits of exposure to 50/60 Hz electric and magnetic fields (1989)</i> , National Health and Medical Research Council, Radiation Health Series No. 30, as in force when these regulations commence.
2	For frequencies other than 50/60 Hz, and below 3 kHz, the field limits mentioned in the International Commission on Non-Ionizing Radiation Protection Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz), Health Physics (1998), 74, 494-522, as in force when these regulations commence.
3	The maximum exposure levels mentioned in the <i>Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields—3 kHz to 300 GHz (2002)</i> (Radiation Protection Series No. 3).
4	The maximum permissible exposure limits mentioned in Australian/New Zealand Standard AS/NZS IEC 60825.1:2011 <i>Safety of laser products, Part 1: Equipment classification and requirements</i> .
5	The exposure limits mentioned in Australian/New Zealand Standard AS/NZS IEC 62471:2011 <i>Photobiological safety of lamps and lamp systems</i> .
6	The exposure limits mentioned in the <i>Radiation Protection Standard for Occupational Exposure to Ultraviolet Radiation (2006)</i> (Radiation Protection Series No. 12).

Schedule 1 Exposure limits for non-ionizing radiation
Part 7 Miscellaneous

Exposure limits for non-ionizing radiation	
Item	Exposure limits
1	The exposure limits mentioned in the <i>Interim guidelines on limits of exposure to 50/60 Hz electric and magnetic fields (1989)</i> , National Health and Medical Research Council, Radiation Health Series No. 30, as in force when these regulations commence.
7	For static magnetic fields—the limits mentioned in the International Commission on Non-Ionizing Radiation Protection <i>Guidelines on limits of exposure to static magnetic fields</i> , published in <i>Health Physics</i> 96(4):504-514; 2009.

Note: The documents mentioned in items 1, 3 and 6 of the table could in 2015 be viewed on ARPANSA's website (<http://www.arpansa.gov.au>).

Schedule 2—Exempt dealings

(regulations 3A, 6, 7, 8, 11 and 38 and Schedules 3B and 3C)

Part 1—Exempt dealings

1 Exempt dealings

The following table sets out dealings that are exempt dealings.

Exempt dealings	
Item	Description of dealing
1	The dealing involves a controlled material that has: (a) an activity concentration less than the activity concentration value for the material set out in an item in the table in clause 2; or (b) an activity less than the activity value for the material set out in that item.
2	The dealing is mixing 2 or more controlled materials. The activity for each material being mixed is divided by: (a) the activity value for the material set out in an item in the table in clause 2; or (b) the activity concentration value for the material set out in that item, and then divided by the total mass of the mixture. The results for all of the materials are added. The total is 1 or less.
3	The dealing involves naturally occurring radon-222 with an activity concentration of less than 1000 Bq/m ³ in the special case of exposure in the workplace. If the dealing includes any other controlled material, the use of the other material must also be an exempt dealing.
4	The dealing involves depleted uranium and no other controlled material. The uranium: (a) is being used as radiation shielding in a container for controlled materials; and

Schedule 2 Exempt dealings

Part 1 Exempt dealings

Exempt dealings	
Item	Description of dealing
	(b) is completely contained in an appropriate metallic sheath; and (c) is in a container for controlled materials that complies with the requirements in the <i>Code for the Safe Transport of Radioactive Material (2014) (Radiation Protection Series C-2)</i> for transporting radioactive substances.
5	The dealing involves depleted uranium and no other controlled material. The depleted uranium is in solid massive form that is used for ballast.
6	The dealing involves a smoke detector designed and made in accordance with Australian Standard AS 3786—1993 <i>Smoke Alarms</i> (incorporating Amendment Nos 1, 2, 3 and 4). The dealing is not repair or maintenance of the detector.
7	The dealing involves any of the following items and no other controlled apparatus or controlled material: (b) a gaseous tritium light device that: (i) is used solely for safety purposes; and (ii) includes less than 74 GBq of tritium; (c) a television receiver; (d) a visual display terminal; (e) a cathode ray tube; (f) an electron microscope; (g) arc welding equipment; (h) an electron capture detector or similar device used in gas chromatography containing: (i) a nickel-63 sealed source with activity not more than 750 MBq; or (ii) a tritium source with activity not more than 20 GBq; (i) lighting products that include krypton-85.
8	The dealing involves a controlled apparatus or controlled material that is part of, used in connection with, produced by, incorporated in, stored in, or disposed of in, a controlled facility for which a facility licence is in force.
9	The dealing involves a sealed radioactive source used for teaching the characteristics and properties of radiation or radiation sources, and the sealed source contains one or more of the following: (a) Cobalt-60 with an activity not greater than 200 kBq;

Exempt dealings	
Item	Description of dealing
	(b) Strontium-90 with an activity not greater than 80 kBq; (c) Caesium-137 with an activity not greater than 200 kBq; (d) Radium-226 with an activity not greater than 20 kBq; (e) Americium-241 with an activity not greater than 40 kBq.
10	The dealing involves a geological sample that: (a) contains radioactive material that emits radiation at a level not exceeding 5 micrograys an hour, measured at a distance of 10 cm from its surface; and (b) is being used as a sample in teaching or for display as a geological specimen.

Note: The code mentioned in item 4 of the table could in 2015 be viewed on ARPANSA's website (<http://www.arpansa.gov.au>).

Part 2—Activity concentration values and activity values for nuclides

2 Activity concentration values and activity values for nuclides

The following table sets out activity concentration values and activity values for nuclides.

Note 1: The activity of a progeny nuclide included in secular equilibrium with a parent nuclide is dealt with in regulation 3A. Parent nuclides and progeny nuclides are set out in the table in clause 3, and parent nuclides are also marked ^a in the following table.

Note 2: A nuclide marked m or m' in the following table indicates a metastable state of the nuclide, with the metastable state m' indicating a state of higher energy than the metastable state m.

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
1	H-3	1×10^6	1×10^9
2	Be-7	1×10^3	1×10^7
3	Be-10	1×10^4	1×10^6
4	C-11	1×10^1	1×10^6
5	C-14	1×10^4	1×10^7
6	Ne-13	1×10^2	1×10^9
7	Ne-19	1×10^2	1×10^9
8	O-15	1×10^2	1×10^9
9	F-18	1×10^1	1×10^6
10	Na-22	1×10^1	1×10^6
11	Na-24	1×10^1	1×10^5
12	Mg-28	1×10^1	1×10^5
13	Al-26	1×10^1	1×10^5
14	Si-31	1×10^3	1×10^6
15	Si-32	1×10^3	1×10^6

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
16	P-32	1×10^3	1×10^5
17	P-33	1×10^5	1×10^8
18	S-35	1×10^5	1×10^8
19	Cl-36	1×10^4	1×10^6
20	Cl-38	1×10^1	1×10^5
21	Cl-39	1×10^1	1×10^5
22	Ar-37	1×10^6	1×10^8
23	Ar-39	1×10^7	1×10^4
24	Ar-41	1×10^2	1×10^9
25	K-40	1×10^2	1×10^6
26	K-42	1×10^2	1×10^6
27	K-43	1×10^1	1×10^6
28	K-44	1×10^1	1×10^5
29	K-45	1×10^1	1×10^5
30	Ca-41	1×10^5	1×10^7
31	Ca-45	1×10^4	1×10^7
32	Ca-47	1×10^1	1×10^6
33	Sc-43	1×10^1	1×10^6
34	Sc-44	1×10^1	1×10^5
35	Sc-45	1×10^2	1×10^7
36	Sc-46	1×10^1	1×10^6
37	Sc-47	1×10^2	1×10^6
38	Sc-48	1×10^1	1×10^5
39	Sc-49	1×10^3	1×10^5
40	Ti-44	1×10^1	1×10^5
41	Ti-45	1×10^1	1×10^6
42	V-47	1×10^1	1×10^5
43	V-48	1×10^1	1×10^5
44	V-49	1×10^4	1×10^7

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
45	Cr-48	1×10^2	1×10^6
46	Cr-49	1×10^1	1×10^6
47	Cr-51	1×10^3	1×10^7
48	Mn-51	1×10^1	1×10^5
49	Mn-52	1×10^1	1×10^5
50	Mn-52m	1×10^1	1×10^5
51	Mn-53	1×10^4	1×10^9
52	Mn-54	1×10^1	1×10^6
53	Mn-56	1×10^1	1×10^5
54	Fe-52	1×10^1	1×10^6
55	Fe-55	1×10^4	1×10^6
56	Fe-59	1×10^1	1×10^6
57	Fe-60	1×10^2	1×10^5
58	Co-55	1×10^1	1×10^6
59	Co-56	1×10^1	1×10^5
60	Co-57	1×10^2	1×10^6
61	Co-58	1×10^1	1×10^6
62	Co-58m	1×10^4	1×10^7
63	Co-60	1×10^1	1×10^5
64	Co-60m	1×10^3	1×10^6
65	Co-61	1×10^2	1×10^6
66	Co-62m	1×10^1	1×10^5
67	Ni-56	1×10^1	1×10^6
68	Ni-57	1×10^1	1×10^6
69	Ni-59	1×10^4	1×10^8
70	Ni-63	1×10^5	1×10^8
71	Ni-65	1×10^1	1×10^6
72	Ni-66	1×10^4	1×10^7
73	Cu-60	1×10^1	1×10^5

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
74	Cu-61	1×10^1	1×10^6
75	Cu-64	1×10^2	1×10^6
76	Cu-67	1×10^2	1×10^6
77	Zn-62	1×10^2	1×10^6
78	Zn-63	1×10^1	1×10^5
79	Zn-65	1×10^1	1×10^6
80	Zn-69	1×10^4	1×10^6
81	Zn-69m	1×10^2	1×10^6
82	Zn-71m	1×10^1	1×10^6
83	Zn-72	1×10^2	1×10^6
84	Ga-65	1×10^1	1×10^5
85	Ga-66	1×10^1	1×10^5
86	Ga-67	1×10^2	1×10^6
87	Ga-68	1×10^1	1×10^5
88	Ga-70	1×10^2	1×10^6
89	Ga-72	1×10^1	1×10^5
90	Ga-73	1×10^2	1×10^6
91	Ge-66	1×10^1	1×10^6
92	Ge-67	1×10^1	1×10^5
93	Ge-68 ^a	1×10^1	1×10^5
94	Ge-69	1×10^1	1×10^6
95	Ge-71	1×10^4	1×10^8
96	Ge-75	1×10^3	1×10^6
97	Ge-77	1×10^1	1×10^5
98	Ge-78	1×10^2	1×10^6
99	As-69	1×10^1	1×10^5
100	As-70	1×10^1	1×10^5
101	As-71	1×10^1	1×10^6
102	As-72	1×10^1	1×10^5

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
103	As-73	1×10^3	1×10^7
104	As-74	1×10^1	1×10^6
105	As-76	1×10^2	1×10^5
106	As-77	1×10^3	1×10^6
107	As-78	1×10^1	1×10^5
108	Se-70	1×10^1	1×10^6
109	Se-73	1×10^1	1×10^6
110	Se-73m	1×10^2	1×10^6
111	Se-75	1×10^2	1×10^6
112	Se-79	1×10^4	1×10^7
113	Se-81	1×10^3	1×10^6
114	Se-81m	1×10^3	1×10^7
115	Se-83	1×10^1	1×10^5
116	Br-74	1×10^1	1×10^5
117	Br-74m	1×10^1	1×10^5
118	Br-75	1×10^1	1×10^6
119	Br-76	1×10^1	1×10^5
120	Br-77	1×10^2	1×10^6
121	Br-80	1×10^2	1×10^5
122	Br-80m	1×10^3	1×10^7
123	Br-82	1×10^1	1×10^6
124	Br-83	1×10^3	1×10^6
125	Br-84	1×10^1	1×10^5
126	Kr-74	1×10^2	1×10^9
127	Kr-76	1×10^2	1×10^9
128	Kr-77	1×10^2	1×10^9
129	Kr-79	1×10^3	1×10^5
130	Kr-81	1×10^4	1×10^7
131	Kr-81m	1×10^3	1×10^{10}

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
132	Kr-83m	1×10^5	1×10^{12}
133	Kr-85	1×10^5	1×10^4
134	Kr-85m	1×10^3	1×10^{10}
135	Kr-87	1×10^2	1×10^9
136	Kr-88	1×10^2	1×10^9
137	Rb-79	1×10^1	1×10^5
138	Rb-81	1×10^1	1×10^6
139	Rb-81m	1×10^3	1×10^7
140	Rb-82m	1×10^1	1×10^6
141	Rb-83 ^a	1×10^2	1×10^6
142	Rb-84	1×10^1	1×10^6
143	Rb-86	1×10^2	1×10^5
144	Rb-87	1×10^3	1×10^7
145	Rb-88	1×10^2	1×10^5
146	Rb-89	1×10^2	1×10^5
147	Sr-80	1×10^3	1×10^7
148	Sr-81	1×10^1	1×10^5
149	Sr-82 ^a	1×10^1	1×10^5
150	Sr-83	1×10^1	1×10^6
151	Sr-85	1×10^2	1×10^6
152	Sr-85m	1×10^2	1×10^7
153	Sr-87m	1×10^2	1×10^6
154	Sr-89	1×10^3	1×10^6
155	Sr-90 ^a	1×10^2	1×10^4
156	Sr-91	1×10^1	1×10^5
157	Sr-92	1×10^1	1×10^6
158	Y-86	1×10^1	1×10^5
159	Y-86m	1×10^2	1×10^7
160	Y-87 ^a	1×10^1	1×10^6

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
161	Y-88	1×10^1	1×10^6
162	Y-90	1×10^3	1×10^5
163	Y-90m	1×10^1	1×10^6
164	Y-91	1×10^3	1×10^6
165	Y-91m	1×10^2	1×10^6
166	Y-92	1×10^2	1×10^5
167	Y-93	1×10^2	1×10^5
168	Y-94	1×10^1	1×10^5
169	Y-95	1×10^1	1×10^5
170	Zr-86	1×10^2	1×10^7
171	Zr-88	1×10^2	1×10^6
172	Zr-89	1×10^1	1×10^6
173	Zr-93 ^a	1×10^3	1×10^7
174	Zr-95	1×10^1	1×10^6
175	Zr-97 ^a	1×10^1	1×10^5
176	Nb-88	1×10^1	1×10^5
177	Nb-89	1×10^1	1×10^5
178	Nb-89m	1×10^1	1×10^5
179	Nb-90	1×10^1	1×10^5
180	Nb-93m	1×10^4	1×10^7
181	Nb-94	1×10^1	1×10^6
182	Nb-95	1×10^1	1×10^6
183	Nb-95m	1×10^2	1×10^7
184	Nb-96	1×10^1	1×10^5
185	Nb-97	1×10^1	1×10^6
186	Nb-98	1×10^1	1×10^5
187	Mo-90	1×10^1	1×10^6
188	Mo-93	1×10^3	1×10^8
189	Mo-93m	1×10^1	1×10^6

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
190	Mo-99	1×10^2	1×10^6
191	Mo-101	1×10^1	1×10^6
192	Tc-93	1×10^1	1×10^6
193	Tc-93m	1×10^1	1×10^6
194	Tc-94	1×10^1	1×10^6
195	Tc-94m	1×10^1	1×10^5
196	Tc-95	1×10^1	1×10^6
197	Tc-95m	1×10^1	1×10^6
198	Tc-96	1×10^1	1×10^6
199	Tc-96m	1×10^3	1×10^7
200	Tc-97	1×10^3	1×10^8
201	Tc-97m	1×10^3	1×10^7
202	Tc-98	1×10^1	1×10^6
203	Tc-99	1×10^4	1×10^7
204	Tc-99m	1×10^2	1×10^7
205	Tc-101	1×10^2	1×10^6
206	Tc-104	1×10^1	1×10^5
207	Ru-94	1×10^2	1×10^6
208	Ru-97	1×10^2	1×10^7
209	Ru-103	1×10^2	1×10^6
210	Ru-105	1×10^1	1×10^6
211	Ru-106 ^a	1×10^2	1×10^5
212	Rh-99	1×10^1	1×10^6
213	Rh-99m	1×10^1	1×10^6
214	Rh-100	1×10^1	1×10^6
215	Rh-101	1×10^2	1×10^7
216	Rh-101m	1×10^2	1×10^7
217	Rh-102	1×10^1	1×10^6
218	Rh-102m	1×10^2	1×10^6

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
219	Rh-103m	1×10^4	1×10^8
220	Rh-105	1×10^2	1×10^7
221	Rh-106m	1×10^1	1×10^5
222	Rh-107	1×10^2	1×10^6
223	Pd-100	1×10^2	1×10^7
224	Pd-101	1×10^2	1×10^6
225	Pd-103	1×10^3	1×10^8
226	Pd-107	1×10^5	1×10^8
227	Pd-109	1×10^3	1×10^6
228	Ag-102	1×10^1	1×10^5
229	Ag-103	1×10^1	1×10^6
230	Ag-104	1×10^1	1×10^6
231	Ag-104m	1×10^1	1×10^6
232	Ag-105	1×10^2	1×10^6
233	Ag-106	1×10^1	1×10^6
234	Ag-106m	1×10^1	1×10^6
235	Ag-108m ^a	1×10^1	1×10^6
236	Ag-110m	1×10^1	1×10^6
237	Ag-111	1×10^3	1×10^6
238	Ag-112	1×10^1	1×10^5
239	Ag-115	1×10^1	1×10^5
240	Cd-104	1×10^2	1×10^7
241	Cd-107	1×10^3	1×10^7
242	Cd-109	1×10^4	1×10^6
243	Cd-113	1×10^3	1×10^6
244	Cd-113m	1×10^3	1×10^6
245	Cd-115	1×10^2	1×10^6
246	Cd-115m	1×10^3	1×10^6
247	Cd-117	1×10^1	1×10^6

Exempt dealings **Schedule 2**
Activity concentration values and activity values for nuclides **Part 2**

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
248	Cd-117m	1×10^1	1×10^6
249	In-109	1×10^1	1×10^6
250	In-110	1×10^1	1×10^6
251	In-110m	1×10^1	1×10^5
252	In-111	1×10^2	1×10^6
253	In-112	1×10^2	1×10^6
254	In-113m	1×10^2	1×10^6
255	In-114	1×10^3	1×10^5
256	In-114m	1×10^2	1×10^6
257	In-115	1×10^3	1×10^5
258	In-115m	1×10^2	1×10^6
259	In-116m	1×10^1	1×10^5
260	In-117	1×10^1	1×10^6
261	In-117m	1×10^2	1×10^6
262	In-119m	1×10^2	1×10^5
263	Sn-110	1×10^2	1×10^7
264	Sn-111	1×10^2	1×10^6
265	Sn-113	1×10^3	1×10^7
266	Sn-117m	1×10^2	1×10^6
267	Sn-119m	1×10^3	1×10^7
268	Sn-121	1×10^5	1×10^7
269	Sn-121m ^a	1×10^3	1×10^7
270	Sn-123	1×10^3	1×10^6
271	Sn-123m	1×10^2	1×10^6
272	Sn-125	1×10^2	1×10^5
273	Sn-126 ^a	1×10^1	1×10^5
274	Sn-127	1×10^1	1×10^6
275	Sn-128	1×10^1	1×10^6
276	Sb-115	1×10^1	1×10^6

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
277	Sb-116	1×10^1	1×10^6
278	Sb-116m	1×10^1	1×10^5
279	Sb-117	1×10^2	1×10^7
280	Sb-118m	1×10^1	1×10^6
281	Sb-119	1×10^3	1×10^7
282	Sb-120	1×10^2	1×10^6
283	Sb-120m	1×10^1	1×10^6
284	Sb-122	1×10^2	1×10^4
285	Sb-124	1×10^1	1×10^6
286	Sb-124m	1×10^2	1×10^6
287	Sb-125	1×10^2	1×10^6
288	Sb-126	1×10^1	1×10^5
289	Sb-126m	1×10^1	1×10^5
290	Sb-127	1×10^1	1×10^6
291	Sb-128	1×10^1	1×10^5
292	Sb-128m	1×10^1	1×10^5
293	Sb-129	1×10^1	1×10^6
294	Sb-130	1×10^1	1×10^5
295	Sb-131	1×10^1	1×10^6
296	Te-116	1×10^2	1×10^7
297	Te-121	1×10^1	1×10^6
298	Te-121m	1×10^2	1×10^6
299	Te-123	1×10^3	1×10^6
300	Te-123m	1×10^2	1×10^7
301	Te-125m	1×10^3	1×10^7
302	Te-127	1×10^3	1×10^6
303	Te-127m	1×10^3	1×10^7
304	Te-129	1×10^2	1×10^6
305	Te-129m	1×10^3	1×10^6

Exempt dealings **Schedule 2**
Activity concentration values and activity values for nuclides **Part 2**

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
306	Te-131	1×10^2	1×10^5
307	Te-131m	1×10^1	1×10^6
308	Te-132	1×10^2	1×10^7
309	Te-133	1×10^1	1×10^5
310	Te-133m	1×10^1	1×10^5
311	Te-134	1×10^1	1×10^6
312	I-120	1×10^1	1×10^5
313	I-120m	1×10^1	1×10^5
314	I-121	1×10^2	1×10^6
315	I-123	1×10^2	1×10^7
316	I-124	1×10^1	1×10^6
317	I-125	1×10^3	1×10^6
318	I-126	1×10^2	1×10^6
319	I-128	1×10^2	1×10^5
320	I-129	1×10^2	1×10^5
321	I-130	1×10^1	1×10^6
322	I-131	1×10^2	1×10^6
323	I-132	1×10^1	1×10^5
324	I-132m	1×10^2	1×10^6
325	I-133	1×10^1	1×10^6
326	I-134	1×10^1	1×10^5
327	I-135	1×10^1	1×10^6
328	Xe-120	1×10^2	1×10^9
329	Xe-121	1×10^2	1×10^9
330	Xe-122 ^a	1×10^2	1×10^9
331	Xe-123	1×10^2	1×10^9
332	Xe-125	1×10^3	1×10^9
333	Xe-127	1×10^3	1×10^5
334	Xe-129m	1×10^3	1×10^4

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
335	Xe-131m	1×10^4	1×10^4
336	Xe-133m	1×10^3	1×10^4
337	Xe-133	1×10^3	1×10^4
338	Xe-135	1×10^3	1×10^{10}
339	Xe-135m	1×10^2	1×10^9
340	Xe-138	1×10^2	1×10^9
341	Cs-125	1×10^1	1×10^4
342	Cs-127	1×10^2	1×10^5
343	Cs-129	1×10^2	1×10^5
344	Cs-130	1×10^2	1×10^6
345	Cs-131	1×10^3	1×10^6
346	Cs-132	1×10^1	1×10^5
347	Cs-134m	1×10^3	1×10^5
348	Cs-134	1×10^1	1×10^4
349	Cs-135	1×10^4	1×10^7
350	Cs-135m	1×10^1	1×10^6
351	Cs-136	1×10^1	1×10^5
352	Cs-137 ^a	1×10^1	1×10^4
353	Cs-138	1×10^1	1×10^4
354	Ba-126	1×10^2	1×10^7
355	Ba-128	1×10^2	1×10^7
356	Ba-131	1×10^2	1×10^6
357	Ba-131m	1×10^2	1×10^7
358	Ba-133	1×10^2	1×10^6
359	Ba-133m	1×10^2	1×10^6
360	Ba-135m	1×10^2	1×10^6
361	Ba-137m	1×10^1	1×10^6
362	Ba-139	1×10^2	1×10^5
363	Ba-140 ^a	1×10^1	1×10^5

Exempt dealings **Schedule 2**
Activity concentration values and activity values for nuclides **Part 2**

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
364	Ba-141	1×10^2	1×10^5
365	Ba-142	1×10^2	1×10^6
366	La-131	1×10^1	1×10^6
367	La-132	1×10^1	1×10^6
368	La-135	1×10^3	1×10^7
369	La-137	1×10^3	1×10^7
370	La-138	1×10^1	1×10^6
371	La-140	1×10^1	1×10^5
372	La-141	1×10^2	1×10^5
373	La-142	1×10^1	1×10^5
374	La-143	1×10^2	1×10^5
375	Ce-134	1×10^3	1×10^7
376	Ce-135	1×10^1	1×10^6
377	Ce-137	1×10^3	1×10^7
378	Ce-137m	1×10^3	1×10^6
379	Ce-139	1×10^2	1×10^6
380	Ce-141	1×10^2	1×10^7
381	Ce-143	1×10^2	1×10^6
382	Ce-144 ^a	1×10^2	1×10^5
383	Pr-136	1×10^1	1×10^5
384	Pr-137	1×10^2	1×10^6
385	Pr-138m	1×10^1	1×10^6
386	Pr-139	1×10^2	1×10^7
387	Pr-142	1×10^2	1×10^5
388	Pr-142m	1×10^7	1×10^9
389	Pr-143	1×10^4	1×10^6
390	Pr-144	1×10^2	1×10^5
391	Pr-145	1×10^3	1×10^5
392	Pr-147	1×10^1	1×10^5

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
393	Nd-136	1×10^2	1×10^6
394	Nd-138	1×10^3	1×10^7
395	Nd-139	1×10^2	1×10^6
396	Nd-139m	1×10^1	1×10^6
397	Nd-141	1×10^2	1×10^7
398	Nd-147	1×10^2	1×10^6
399	Nd-149	1×10^2	1×10^6
400	Nd-151	1×10^1	1×10^5
401	Pm-141	1×10^1	1×10^5
402	Pm-143	1×10^2	1×10^6
403	Pm-144	1×10^1	1×10^6
404	Pm-145	1×10^3	1×10^7
405	Pm-146	1×10^1	1×10^6
406	Pm-147	1×10^4	1×10^7
407	Pm-148	1×10^1	1×10^5
408	Pm-148m	1×10^1	1×10^6
409	Pm-149	1×10^3	1×10^6
410	Pm-150	1×10^1	1×10^5
411	Pm-151	1×10^2	1×10^6
412	Sm-141	1×10^1	1×10^5
413	Sm-141m	1×10^1	1×10^6
414	Sm-142	1×10^2	1×10^7
415	Sm-145	1×10^2	1×10^7
416	Sm-146	1×10^1	1×10^5
417	Sm-147	1×10^1	1×10^4
418	Sm-151	1×10^4	1×10^8
419	Sm-153	1×10^2	1×10^6
420	Sm-155	1×10^2	1×10^6
421	Sm-156	1×10^2	1×10^6

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
422	Eu-145	1×10^1	1×10^6
423	Eu-146	1×10^1	1×10^6
424	Eu-147	1×10^2	1×10^6
425	Eu-148	1×10^1	1×10^6
426	Eu-149	1×10^2	1×10^7
427	Eu-150	1×10^1	1×10^6
428	Eu-150m	1×10^3	1×10^6
429	Eu-152	1×10^1	1×10^6
430	Eu-152m	1×10^2	1×10^6
431	Eu-154	1×10^1	1×10^6
432	Eu-155	1×10^2	1×10^7
433	Eu-156	1×10^1	1×10^6
434	Eu-157	1×10^2	1×10^6
435	Eu-158	1×10^1	1×10^5
436	Gd-145	1×10^1	1×10^5
437	Gd-146 ^a	1×10^1	1×10^6
438	Gd-147	1×10^1	1×10^6
439	Gd-148	1×10^1	1×10^4
440	Gd-149	1×10^2	1×10^6
441	Gd-151	1×10^2	1×10^7
442	Gd-152	1×10^1	1×10^4
443	Gd-153	1×10^2	1×10^7
444	Gd-159	1×10^3	1×10^6
445	Tb-147	1×10^1	1×10^6
446	Tb-149	1×10^1	1×10^6
447	Tb-150	1×10^1	1×10^6
448	Tb-151	1×10^1	1×10^6
449	Tb-153	1×10^2	1×10^7
450	Tb-154	1×10^1	1×10^6

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
451	Tb-155	1×10^2	1×10^7
452	Tb-156	1×10^1	1×10^6
453	Tb-156 (24.4 h)	1×10^3	1×10^7
454	Tb-156m' (5 h)	1×10^4	1×10^7
455	Tb-157	1×10^4	1×10^7
456	Tb-158	1×10^1	1×10^6
457	Tb-160	1×10^1	1×10^6
458	Tb-161	1×10^3	1×10^6
459	Dy-155	1×10^1	1×10^6
460	Dy-157	1×10^2	1×10^6
461	Dy-159	1×10^3	1×10^7
462	Dy-165	1×10^3	1×10^6
463	Dy-166	1×10^3	1×10^6
464	Ho-155	1×10^2	1×10^6
465	Ho-157	1×10^2	1×10^6
466	Ho-159	1×10^2	1×10^6
467	Ho-161	1×10^2	1×10^7
468	Ho-162	1×10^2	1×10^7
469	Ho-162m	1×10^1	1×10^6
470	Ho-164	1×10^3	1×10^6
471	Ho-164m	1×10^3	1×10^7
472	Ho-166	1×10^3	1×10^5
473	Ho-166m	1×10^1	1×10^6
474	Ho-167	1×10^2	1×10^6
475	Er-161	1×10^1	1×10^6
476	Er-165	1×10^3	1×10^7
477	Er-169	1×10^4	1×10^7
478	Er-171	1×10^2	1×10^6
479	Er-172	1×10^2	1×10^6

Exempt dealings **Schedule 2**
Activity concentration values and activity values for nuclides **Part 2**

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
480	Tm-162	1×10^1	1×10^6
481	Tm-166	1×10^1	1×10^6
482	Tm-167	1×10^2	1×10^6
483	Tm-170	1×10^3	1×10^6
484	Tm-171	1×10^4	1×10^8
485	Tm-172	1×10^2	1×10^6
486	Tm-173	1×10^2	1×10^6
487	Tm-175	1×10^1	1×10^6
488	Yb-162	1×10^2	1×10^7
489	Yb-166	1×10^2	1×10^7
490	Yb-167	1×10^2	1×10^6
491	Yb-169	1×10^2	1×10^7
492	Yb-175	1×10^3	1×10^7
493	Yb-177	1×10^2	1×10^6
494	Yb-178	1×10^3	1×10^6
495	Lu-169	1×10^1	1×10^6
496	Lu-170	1×10^1	1×10^6
497	Lu-171	1×10^1	1×10^6
498	Lu-172	1×10^1	1×10^6
499	Lu-173	1×10^2	1×10^7
500	Lu-174	1×10^2	1×10^7
501	Lu-174m	1×10^2	1×10^7
502	Lu-176	1×10^2	1×10^6
503	Lu-176m	1×10^3	1×10^6
504	Lu-177	1×10^3	1×10^7
505	Lu-177m	1×10^1	1×10^6
506	Lu-178	1×10^2	1×10^5
507	Lu-178m	1×10^1	1×10^5
508	Lu-179	1×10^3	1×10^6

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
509	Hf-170	1×10^2	1×10^6
510	Hf-172 ^a	1×10^1	1×10^6
511	Hf-173	1×10^2	1×10^6
512	Hf-175	1×10^2	1×10^6
513	Hf-177m	1×10^1	1×10^5
514	Hf-178m	1×10^1	1×10^6
515	Hf-179m	1×10^1	1×10^6
516	Hf-180m	1×10^1	1×10^6
517	Hf-181	1×10^1	1×10^6
518	Hf-182	1×10^2	1×10^6
519	Hf-182m	1×10^1	1×10^6
520	Hf-183	1×10^1	1×10^6
521	Hf-184	1×10^2	1×10^6
522	Ta-172	1×10^1	1×10^6
523	Ta-173	1×10^1	1×10^6
524	Ta-174	1×10^1	1×10^6
525	Ta-175	1×10^1	1×10^6
526	Ta-176	1×10^1	1×10^6
527	Ta-177	1×10^2	1×10^7
528	Ta-178	1×10^1	1×10^6
529	Ta-179	1×10^3	1×10^7
530	Ta-180	1×10^1	1×10^6
531	Ta-180m	1×10^3	1×10^7
532	Ta-182	1×10^1	1×10^4
533	Ta-182m	1×10^2	1×10^6
534	Ta-183	1×10^2	1×10^6
535	Ta-184	1×10^1	1×10^6
536	Ta-185	1×10^2	1×10^5
537	Ta-186	1×10^1	1×10^5

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
538	W-176	1×10^2	1×10^6
539	W-177	1×10^1	1×10^6
540	W-178 ^a	1×10^1	1×10^6
541	W-179	1×10^2	1×10^7
542	W-181	1×10^3	1×10^7
543	W-185	1×10^4	1×10^7
544	W-187	1×10^2	1×10^6
545	W-188 ^a	1×10^2	1×10^5
546	Re-177	1×10^1	1×10^6
547	Re-178	1×10^1	1×10^6
548	Re-181	1×10^1	1×10^6
549	Re-182	1×10^1	1×10^6
550	Re-182m	1×10^1	1×10^6
551	Re-184	1×10^1	1×10^6
552	Re-184m	1×10^2	1×10^6
553	Re-186	1×10^3	1×10^6
554	Re-186m	1×10^3	1×10^7
555	Re-187	1×10^6	1×10^9
556	Re-188	1×10^2	1×10^5
557	Re-188m	1×10^2	1×10^7
558	Re-189 ^a	1×10^2	1×10^6
559	Os-180	1×10^2	1×10^7
560	Os-181	1×10^1	1×10^6
561	Os-182	1×10^2	1×10^6
562	Os-185	1×10^1	1×10^6
563	Os-189m	1×10^4	1×10^7
564	Os-191	1×10^2	1×10^7
565	Os-191m	1×10^3	1×10^7
566	Os-193	1×10^2	1×10^6

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
567	Os-194 ^a	1 x 10 ²	1 x 10 ⁵
568	Ir-182	1 x 10 ¹	1 x 10 ⁵
569	Ir-184	1 x 10 ¹	1 x 10 ⁶
570	Ir-185	1 x 10 ¹	1 x 10 ⁶
571	Ir-186	1 x 10 ¹	1 x 10 ⁶
572	Ir-186m	1 x 10 ¹	1 x 10 ⁶
573	Ir-187	1 x 10 ²	1 x 10 ⁶
574	Ir-188	1 x 10 ¹	1 x 10 ⁶
575	Ir-189 ^a	1 x 10 ²	1 x 10 ⁷
576	Ir-190	1 x 10 ¹	1 x 10 ⁶
577	Ir-190m (3.1 h)	1 x 10 ¹	1 x 10 ⁶
578	Ir-190m ^γ (1.2 h)	1 x 10 ⁴	1 x 10 ⁷
579	Ir-192	1 x 10 ¹	1 x 10 ⁴
580	Ir-192m	1 x 10 ²	1 x 10 ⁷
581	Ir-193m	1 x 10 ⁴	1 x 10 ⁷
582	Ir-194	1 x 10 ²	1 x 10 ⁵
583	Ir-194m	1 x 10 ¹	1 x 10 ⁶
584	Ir-195	1 x 10 ²	1 x 10 ⁶
585	Ir-195m	1 x 10 ²	1 x 10 ⁶
586	Pt-186	1 x 10 ¹	1 x 10 ⁶
587	Pt-188 ^a	1 x 10 ¹	1 x 10 ⁶
588	Pt-189	1 x 10 ²	1 x 10 ⁶
589	Pt-191	1 x 10 ²	1 x 10 ⁶
590	Pt-193	1 x 10 ⁴	1 x 10 ⁷
591	Pt-193m	1 x 10 ³	1 x 10 ⁷
592	Pt-195m	1 x 10 ²	1 x 10 ⁶
593	Pt-197	1 x 10 ³	1 x 10 ⁶
594	Pt-197m	1 x 10 ²	1 x 10 ⁶
595	Pt-199	1 x 10 ²	1 x 10 ⁶

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
596	Pt-200	1×10^2	1×10^6
597	Au-193	1×10^2	1×10^7
598	Au-194	1×10^1	1×10^6
599	Au-195	1×10^2	1×10^7
600	Au-198	1×10^2	1×10^6
601	Au-198m	1×10^1	1×10^6
602	Au-199	1×10^2	1×10^6
603	Au-200	1×10^2	1×10^5
604	Au-200m	1×10^1	1×10^6
605	Au-201	1×10^2	1×10^6
606	Hg-193	1×10^2	1×10^6
607	Hg-193m	1×10^1	1×10^6
608	Hg-194 ^a	1×10^1	1×10^6
609	Hg-195	1×10^2	1×10^6
610	Hg-195m ^a	1×10^2	1×10^6
611	Hg-197	1×10^2	1×10^7
612	Hg-197m	1×10^2	1×10^6
613	Hg-199m	1×10^2	1×10^6
614	Hg-203	1×10^2	1×10^5
615	Tl-194	1×10^1	1×10^6
616	Tl-194m	1×10^1	1×10^6
617	Tl-195	1×10^1	1×10^6
618	Tl-197	1×10^2	1×10^6
619	Tl-198	1×10^1	1×10^6
620	Tl-198m	1×10^1	1×10^6
621	Tl-199	1×10^2	1×10^6
622	Tl-200	1×10^1	1×10^6
623	Tl-201	1×10^2	1×10^6
624	Tl-202	1×10^2	1×10^6

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
625	Tl-204	1×10^4	1×10^4
626	Pb-195m	1×10^1	1×10^6
627	Pb-198	1×10^2	1×10^6
628	Pb-199	1×10^1	1×10^6
629	Pb-200	1×10^2	1×10^6
630	Pb-201	1×10^1	1×10^6
631	Pb-202	1×10^3	1×10^6
632	Pb-202m	1×10^1	1×10^6
633	Pb-203	1×10^2	1×10^6
634	Pb-205	1×10^4	1×10^7
635	Pb-209	1×10^5	1×10^6
636	Pb-210 ^a	1×10^1	1×10^4
637	Pb-211	1×10^2	1×10^6
638	Pb-212 ^a	1×10^1	1×10^5
639	Pb-214	1×10^2	1×10^6
640	Bi-200	1×10^1	1×10^6
641	Bi-201	1×10^1	1×10^6
642	Bi-202	1×10^1	1×10^6
643	Bi-203	1×10^1	1×10^6
644	Bi-205	1×10^1	1×10^6
645	Bi-206	1×10^1	1×10^5
646	Bi-207	1×10^1	1×10^6
647	Bi-210	1×10^3	1×10^6
648	Bi-210m ^a	1×10^1	1×10^5
649	Bi-212 ^a	1×10^1	1×10^5
650	Bi-213	1×10^2	1×10^6
651	Bi-214	1×10^1	1×10^5
652	Po-203	1×10^1	1×10^6
653	Po-205	1×10^1	1×10^6

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
654	Po-206	1×10^1	1×10^6
655	Po-207	1×10^1	1×10^6
656	Po-208	1×10^1	1×10^4
657	Po-209	1×10^1	1×10^4
658	Po-210	1×10^1	1×10^4
659	At-207	1×10^1	1×10^6
660	At-211	1×10^3	1×10^7
661	Fr-222	1×10^3	1×10^5
662	Fr-223	1×10^2	1×10^6
663	Rn-220 ^a	1×10^4	1×10^7
664	Rn-222 ^a	1×10^1	1×10^8
665	Ra-223 ^a	1×10^2	1×10^5
666	Ra-224 ^a	1×10^1	1×10^5
667	Ra-225	1×10^2	1×10^5
668	Ra-226 ^a	1×10^1	1×10^4
669	Ra-227	1×10^2	1×10^6
670	Ra-228 ^a	1×10^1	1×10^5
671	Ac-224	1×10^2	1×10^6
672	Ac-225 ^a	1×10^1	1×10^4
673	Ac-226	1×10^2	1×10^5
674	Ac-227 ^a	1×10^{-1}	1×10^3
675	Ac-228	1×10^1	1×10^6
676	Th-226 ^a	1×10^3	1×10^7
677	Th-227	1×10^1	1×10^4
678	Th-228 ^a	1×10^0	1×10^4
679	Th-229 ^a	1×10^0	1×10^3
680	Th-230	1×10^0	1×10^4
681	Th-231	1×10^3	1×10^7
682	Th-232	1×10^1	1×10^4

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
683	Th-nat ^a	1 x 10 ⁰	1 x 10 ³
684	Th-234 ^a	1 x 10 ³	1 x 10 ⁵
685	Pa-227	1 x 10 ¹	1 x 10 ⁶
686	Pa228	1 x 10 ¹	1 x 10 ⁶
687	Pa-230	1 x 10 ¹	1 x 10 ⁶
688	Pa-231	1 x 10 ⁰	1 x 10 ³
689	Pa-232	1 x 10 ¹	1 x 10 ⁶
690	Pa-233	1 x 10 ²	1 x 10 ⁷
691	Pa-234	1 x 10 ¹	1 x 10 ⁶
692	U-230 ^a	1 x 10 ¹	1 x 10 ⁵
693	U-231	1 x 10 ²	1 x 10 ⁷
694	U-232 ^a	1 x 10 ⁰	1 x 10 ³
695	U-233	1 x 10 ¹	1 x 10 ⁴
696	U-234	1 x 10 ¹	1 x 10 ⁴
697	U-235 ^a	1 x 10 ¹	1 x 10 ⁴
698	U-236	1 x 10 ¹	1 x 10 ⁴
699	U-237	1 x 10 ²	1 x 10 ⁶
700	U-238 ^a	1 x 10 ¹	1 x 10 ⁴
701	U-nat ^a	1 x 10 ⁰	1 x 10 ³
702	U-239	1 x 10 ²	1 x 10 ⁶
703	U-240	1 x 10 ³	1 x 10 ⁷
704	U-240 ^a	1 x 10 ¹	1 x 10 ⁶
705	Np-232	1 x 10 ¹	1 x 10 ⁶
706	Np-233	1 x 10 ²	1 x 10 ⁷
707	Np-234	1 x 10 ¹	1 x 10 ⁶
708	Np-235	1 x 10 ³	1 x 10 ⁷
709	Np-236	1 x 10 ²	1 x 10 ⁵
710	Np-236m	1 x 10 ³	1 x 10 ⁷
711	Np-237 ^a	1 x 10 ⁰	1 x 10 ³

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
712	Np-238	1×10^2	1×10^6
713	Np-239	1×10^2	1×10^7
714	Np-240	1×10^1	1×10^6
715	Pu-234	1×10^2	1×10^7
716	Pu-235	1×10^2	1×10^7
717	Pu-236	1×10^1	1×10^4
718	Pu-237	1×10^3	1×10^7
719	Pu-238	1×10^0	1×10^4
720	Pu-239	1×10^0	1×10^4
721	Pu-240	1×10^0	1×10^3
722	Pu-241	1×10^2	1×10^5
723	Pu-242	1×10^0	1×10^4
724	Pu-243	1×10^3	1×10^7
725	Pu-244	1×10^0	1×10^4
726	Pu-245	1×10^2	1×10^6
727	Pu-246	1×10^2	1×10^6
728	Am-237	1×10^2	1×10^6
729	Am-238	1×10^1	1×10^6
730	Am-239	1×10^2	1×10^6
731	Am-240	1×10^1	1×10^6
732	Am-241	1×10^0	1×10^4
733	Am-242	1×10^3	1×10^6
734	Am-242m ^a	1×10^0	1×10^4
735	Am-243 ^a	1×10^0	1×10^3
736	Am-244	1×10^1	1×10^6
737	Am-244m	1×10^4	1×10^7
738	Am-245	1×10^3	1×10^6
739	Am-246	1×10^1	1×10^5
740	Am-246m	1×10^1	1×10^6

Schedule 2 Exempt dealings**Part 2** Activity concentration values and activity values for nuclides

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
741	Cm-238	1×10^2	1×10^7
742	Cm-240	1×10^2	1×10^5
743	Cm-241	1×10^2	1×10^6
744	Cm-242	1×10^2	1×10^5
745	Cm-243	1×10^0	1×10^4
746	Cm-244	1×10^1	1×10^4
747	Cm-245	1×10^0	1×10^3
748	Cm-246	1×10^0	1×10^3
749	Cm-247	1×10^0	1×10^4
750	Cm-248	1×10^0	1×10^3
751	Cm-249	1×10^3	1×10^6
752	Cm-250	1×10^{-1}	1×10^3
753	Bk-245	1×10^2	1×10^6
754	Bk-246	1×10^1	1×10^6
755	Bk-247	1×10^0	1×10^4
756	Bk-249	1×10^3	1×10^6
757	Bk-250	1×10^1	1×10^6
758	Cf-244	1×10^4	1×10^7
759	Cf-246	1×10^3	1×10^6
760	Cf-248	1×10^1	1×10^4
761	Cf-249	1×10^0	1×10^3
762	Cf-250	1×10^1	1×10^4
763	Cf-251	1×10^0	1×10^3
764	Cf-252	1×10^1	1×10^4
765	Cf-253	1×10^2	1×10^5
766	Cf-254	1×10^0	1×10^3
767	Es-250	1×10^2	1×10^6
768	Es-251	1×10^2	1×10^7
769	Es-253	1×10^2	1×10^5

Activity concentration values and activity values for nuclides			
Item	Nuclide	Activity concentration value (Bq/g)	Activity value (Bq)
770	Es-254	1×10^1	1×10^4
771	Es-254m	1×10^2	1×10^6
772	Fm-252	1×10^3	1×10^6
773	Fm-253	1×10^2	1×10^6
774	Fm-254	1×10^4	1×10^7
775	Fm-255	1×10^3	1×10^6
776	Fm-257	1×10^1	1×10^5
777	Md-257	1×10^2	1×10^7
778	Md-258	1×10^2	1×10^5
779	An alpha-emitting nuclide not mentioned in another item	1×10^0	1×10^3
780	A nuclide that is not alpha-emitting and not mentioned in another item	1×10^1	1×10^4

Part 3—Parent nuclides and progeny nuclides

3 Parent nuclides and progeny nuclides

The following table sets out progeny nuclides for parent nuclides included in secular equilibrium.

Note 1: The activity of a progeny nuclide included in secular equilibrium with a parent nuclide is dealt with in regulation 3A.

Note 2: Parent nuclides are also marked ^a in the table in clause 2.

Parent nuclides and progeny nuclides		
Item	Parent nuclide	Progeny nuclide
1	Ge-68	Ga-68
2	Rb-83	Kr-83m
3	Sr-82	Rb-82
4	Sr-90	Y-90
5	Y-87	Sr-87m
6	Zr-93	Nb-93m
7	Zr-97	Nb-97
8	Ru-106	Rh-106
9	Ag-108m	Ag-108
10	Sn-121m	Sn-121 (0.776)
11	Sn-126	Sb-126m
12	Xe-122	I-122
13	Cs-137	Ba-137m
14	Ba-140	La-140
15	Ce-144	Pr-144
16	Gd-146	Eu-146
17	Hf-172	Lu-172
18	W-178	Ta-178
19	W-188	Re-188
20	Re-189	Os-189m (0.241)

Parent nuclides and progeny nuclides		
Item	Parent nuclide	Progeny nuclide
21	Os-194	Ir-194
22	Ir-189	Os-189m
23	Pt-188	Ir-188
24	Hg-194	Au-194
25	Hg-195m	Hg-195 (0.542)
26	Pb-210	Bi-210 Po-210
27	Pb-212	Bi-212 Tl-208 (0.36) Po-212 (0.64)
28	Bi-210m	Tl-206
29	Bi-212	Tl-208 (0.36) Po-212 (0.64)
30	Rn-220	Po-216
31	Rn-222	Po-218 Pb-214 Bi-214 Po-214
32	Ra-223	Rn-219 Po-215 Pb-211 Bi-211 Tl-207
33	Ra-224	Rn-220 Po-216 Pb-212 Bi-212 Tl-208 (0.36) Po-212 (0.64)
34	Ra-226	Rn-222 Po-218 Pb-214 Bi-214 Po-214 Pb-210

Schedule 2 Exempt dealings**Part 3** Parent nuclides and progeny nuclides

Parent nuclides and progeny nuclides		
Item	Parent nuclide	Progeny nuclide
		Bi-210
		Po-210
35	Ra-228	Ac-228
36	Ac-225	Fr-221
		At-217
		Bi-213
		Po-213 (0.978)
		Tl-209 (0.0216)
		Pb-209 (0.978)
37	Ac-227	Fr-223 (0.0138)
38	Th-226	Ra-222
		Rn-218
		Po-214
39	Th-228	Ra-224
		Rn-220
		Po-216
		Pb-212
		Bi-212
		Tl-208 (0.36)
		Po-212 (0.64)
40	Th-229	Ra-225
		Ac-225
		Fr-221
		At-217
		Bi-213
		Po-213
		Pb-209
41	Th-nat	Ra-228
		Ac-228
		Th-228
		Ra-224
		Rn-220
		Po-216
		Pb-212
		Bi-212
		Tl-208 (0.36)
		Po-212 (0.64)

Parent nuclides and progeny nuclides		
Item	Parent nuclide	Progeny nuclide
42	Th-234	Pa-234m
43	U-230	Th-226 Ra-222 Rn-218 Po-214
44	U-232	Th-228 Ra-224 Rn-220 Po-216 Pb-212 Bi-212 Tl-208 (0.36) Po-212 (0.64)
45	U-235	Th-231
46	U-238	Th-234 Pa-234m
47	U-nat	Th-234 Pa-234m U-234 Th-230 Ra-226 Rn-222 Po-218 Pb-214 Bi-214 Po-214 Pb-210 Bi-210 Po-210
48	U-240	Np-240m
49	Np-237	Pa-233
50	Am-242m	Am-242
51	Am-243	Np-239

Schedule 3—Information that may be requested by the CEO

(regulation 39)

Part 1—Facility licence

1 Facility licence—information and documents that may be requested by CEO

The following table sets out information and documents that the CEO may ask an applicant for a facility licence to give.

Facility licence—information and documents that may be requested by CEO	
Item	Information and documents
General information	
1	The applicant's full name, position and business address.
2	A description of the purpose of the facility that is to be authorised by the facility licence.
3	A detailed description of the controlled facility and the site for that facility.
4	Plans and arrangements describing how the applicant proposes to manage the controlled facility to ensure the health and safety of people, and the protection of the environment including the following information: (a) the applicant's arrangements for maintaining effective control of the facility; (b) the safety management plan for the controlled facility; (c) the radiation protection plan for the controlled facility; (d) the radioactive waste management plan for the controlled facility; (e) the security plan for the controlled facility; (f) the emergency plan for the controlled facility; (g) the environment protection plan for the controlled facility.
Authorisation for preparing a site for a controlled facility	
5	A detailed site evaluation establishing the suitability of the site.
6	The characteristics of the site, including the extent to which the site may be affected by natural and man-made events.

Facility licence—information and documents that may be requested by CEO	
Item	Information and documents
7	Any environmental impact statement requested or required by a government agency, and the outcome of the environmental assessment.
Authorisation to construct a controlled facility	
8	The design of the controlled facility, including ways in which the design deals with the physical and environmental characteristics of the site.
9	Any fundamental difficulties that will need to be resolved before any future authorisation is given.
10	The construction plan and schedule.
11	A preliminary safety analysis report that demonstrates the adequacy of the design of the facility and identifies structure, components and systems that are safety related items.
12	The arrangements for testing and commissioning safety related items.
Authorisation to possess or control a controlled facility	
13	The arrangements for maintaining criticality safety during loading, moving or storing nuclear fuel and other fissile materials at the controlled facility.
14	The arrangements for safe storage of controlled material and maintaining the controlled facility.
Authorisation to operate a controlled facility	
15	A description of the structures, components, systems and equipment of the controlled facility as they have been constructed.
16	A final safety analysis report that demonstrates the adequacy of the design of the controlled facility, and includes the results of commissioning tests.
17	The operational limits and conditions of the controlled facility.
18	The arrangements for commissioning the controlled facility.
19	The arrangements for operating the controlled facility.
Authorisation for decommissioning a controlled facility	
20	The decommissioning plan for the controlled facility.
21	The schedule for decommissioning the controlled facility.
Authorisation for abandoning a controlled facility	
22	The results of decommissioning activities at the controlled facility.
23	Details of any environmental monitoring program proposed for the site.

Part 2—Source licence

2 Source licence—information and documents that may be requested by CEO

The following table sets out information and documents that the CEO may ask an applicant for a source licence to give.

Source licence—information and documents that may be requested by CEO	
Item	Information and documents
1	The applicant's full name, position and business address.
2	A description of the purpose of the proposed source licence.
3	A detailed description of the dealing that is to be authorised by the source licence.
4	<p>Plans and arrangements describing how the applicant proposes to manage the controlled material or apparatus to ensure the health and safety of people and the protection of the environment including the following information:</p> <ul style="list-style-type: none">(a) the applicant's arrangements for maintaining effective control of the controlled material or controlled apparatus;(b) the safety management plan for the controlled material or controlled apparatus;(c) the radiation protection plan for the controlled material or controlled apparatus;(d) the radioactive waste management plan for the controlled material or controlled apparatus;(e) the plan for ultimate disposal or transfer of the controlled material or controlled apparatus;(f) the security plan for the controlled material or controlled apparatus;(g) the emergency plan for the controlled material or controlled apparatus.
5	<p>If the dealing involves a sealed source of a controlled material:</p> <ul style="list-style-type: none">(a) the nuclide, activity, chemical form, encapsulation material and physical form of the sealed source; and(b) the purpose and identification details of the sealed source; and(c) the place where the sealed source is located; and(d) a copy of any sealed source certificate for the sealed source.

Source licence—information and documents that may be requested by CEO	
Item	Information and documents
6	If the dealing involves an unsealed source of a controlled material: (a) the nuclide, chemical form and physical form of the unsealed source; and (b) the purpose and identification details of the unsealed source; and (c) the maximum activity of each nuclide to be held on the premises at any 1 time; and (d) the place where the unsealed source is to be located.
7	If the dealing involves a controlled apparatus that produces ionizing radiation: (a) the purpose and identification details of the controlled apparatus; and (b) the maximum kilovoltage; and (c) the place where the controlled apparatus is used.
8	If the dealing involves a controlled apparatus that produces non-ionizing radiation: (a) the purpose and identification details of the controlled apparatus; and (b) the likely exposure levels including the nature of the radiation; and (c) all output parameters relevant to the likely exposure conditions; and (d) the place where the controlled apparatus is used.

Schedule 3A—Facility licence application fees—nuclear installations

(regulation 40B)

1 Facility licence application fees—nuclear installations

The following table sets out the amount of the application fee for a facility licence that authorises a person to do a thing mentioned in an item in the table in relation to a controlled facility that is a nuclear installation.

Facility licence application fees—nuclear installations		
Item	Thing authorised to be done by licence	Amount (\$)
1	Preparing a site for a controlled facility, being a nuclear reactor that is designed: (a) for research or production of nuclear materials for industrial or medical use (including critical and subcritical assemblies); and (b) to have maximum thermal power of less than 1 megawatt	28 021
2	Constructing a controlled facility, being a nuclear reactor that is designed: (a) for research or production of nuclear materials for industrial or medical use (including critical and subcritical assemblies); and (b) to have maximum thermal power of less than 1 megawatt	175 135
3	Possessing or controlling a controlled facility, being a nuclear reactor: (a) for research or production of nuclear materials for industrial or medical use (including critical and subcritical assemblies); and (b) with maximum thermal power of less than 1 megawatt	140 109
4	Operating a controlled facility, being a nuclear reactor: (a) for research or production of nuclear materials for industrial or medical use (including critical and subcritical assemblies); and (b) with maximum thermal power of less than 1 megawatt	70 053

Facility licence application fees—nuclear installations		
Item	Thing authorised to be done by licence	Amount (\$)
5	De-commissioning, disposing of or abandoning a controlled facility, being a nuclear reactor that: (a) was used for research or production of nuclear materials for industrial or medical use (including critical and subcritical assemblies); and (b) had maximum thermal power of less than 1 megawatt	70 053
6	Preparing a site for a controlled facility, being a nuclear reactor that is designed: (a) for research or production of nuclear materials for industrial or medical use (including critical and subcritical assemblies); and (b) to have maximum thermal power of 1 megawatt or more	140 109
7	Constructing a controlled facility, being a nuclear reactor that is designed: (a) for research or production of nuclear materials for industrial or medical use (including critical and subcritical assemblies); and (b) to have maximum thermal power of 1 megawatt or more	560 434
8	Possessing or controlling a controlled facility, being a nuclear reactor: (a) for research or production of nuclear materials for industrial or medical use (including critical and subcritical assemblies); and (b) with maximum thermal power of 1 megawatt or more	140 109
9	Operating a controlled facility, being a nuclear reactor: (a) for research or production of nuclear materials for industrial or medical use (including critical and subcritical assemblies); and (b) with maximum thermal power of 1 megawatt or more	600 467
10	De-commissioning, disposing of or abandoning a controlled facility, being a nuclear reactor that: (a) was used for research or production of nuclear materials for industrial or medical use (including critical and subcritical assemblies); and (b) had maximum thermal power of 1 megawatt or more	140 109

Schedule 3A Facility licence application fees—nuclear installations
Part 2 Source licence

Facility licence application fees—nuclear installations		
Item	Thing authorised to be done by licence	Amount (\$)
11	Preparing a site for a controlled facility, being a plant for preparing or storing fuel for use in a nuclear reactor of a kind mentioned in any of items 1 to 9	14 010
12	Constructing a controlled facility, being a plant for preparing or storing fuel for use in a nuclear reactor of a kind mentioned in any of items 1 to 9	63 047
13	Possessing or controlling a controlled facility, being a plant for preparing or storing fuel for use in a nuclear reactor of a kind mentioned in any of items 1 to 9	14 010
14	Operating a controlled facility, being a plant for preparing or storing fuel for use in a nuclear reactor of a kind mentioned in any of items 1 to 9	63 047
15	De-commissioning, disposing of or abandoning a controlled facility, being a plant that was used for preparing or storing fuel for use in a nuclear reactor of a kind mentioned in any of items 1 to 9	28 021
16	Preparing a site for a controlled facility, being: (a) a nuclear waste storage facility that is designed to contain controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 7; or (b) a nuclear waste disposal facility that is designed to contain controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 8	333 593
17	Constructing a controlled facility, being: (a) a nuclear waste storage facility that is designed to contain controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 7; or (b) a nuclear waste disposal facility that is designed to contain controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 8	400 311
18	Possessing or controlling a controlled facility, being: (a) a nuclear waste storage facility that contains controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 7; or (b) a nuclear waste disposal facility that contains controlled materials with an activity that is greater than the applicable	14 010

Facility licence application fees—nuclear installations		
Item	Thing authorised to be done by licence	Amount (\$)
	activity level prescribed by regulation 8	
19	Operating a controlled facility, being: (a) a nuclear waste storage facility that contains controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 7; or (b) a nuclear waste disposal facility that contains controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 8	210 163
20	De-commissioning, disposing of or abandoning a controlled facility, being: (a) a nuclear waste storage facility that formerly contained controlled materials with an activity that was greater than the applicable activity level prescribed by regulation 7; or (b) a nuclear waste disposal facility that formerly contained controlled materials with an activity that was greater than the applicable activity level prescribed by regulation 8	28 021
21	Preparing a site for a controlled facility, being a facility to produce radioisotopes, that is designed to contain controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 11	70 053
22	Constructing a controlled facility, being a facility to produce radioisotopes, that is designed to contain controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 11	140 109
23	Possessing or controlling a controlled facility, being a facility producing radioisotopes and containing controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 11	14 010
24	Operating a controlled facility, being a facility producing radioisotopes and containing controlled materials with an activity that is greater than the applicable activity level prescribed by regulation 11	126 098
25	De-commissioning, disposing of, or abandoning a controlled facility, being a facility that formerly produced radioisotopes and contained controlled materials with an activity that was greater than the applicable activity level prescribed by regulation 11	28 021

Schedule 3B—Facility licence application fees—prescribed radiation facilities

(regulation 40C)

Part 1—Fees—general

1 Facility licence application fees—prescribed radiation facilities (general)

The following table sets out the amount of the application fee for a facility licence that authorises a person to do a thing in relation to a controlled facility that is a prescribed radiation facility of a kind mentioned in an item in the table (except if the thing is mentioned in an item in the table in clause 2).

Facility licence application fees—prescribed radiation facilities (general)		
Item	Kind of prescribed radiation facility	Amount (\$)
1	Particle accelerator with a beam energy of more than 1 MeV	12 609
2	Particle accelerator capable of producing neutrons	12 609
3	Irradiator containing more than 10^{15} Bq of a controlled material	12 609
4	Irradiator containing more than 10^{13} Bq of a controlled material but not including shielding as an integral part of its construction	12 609
5	Irradiator containing more than 10^{13} Bq of a controlled material and including shielding as an integral part of its construction, but the shielding does not prevent a person from being exposed to the source	12 609
6	Irradiator containing more than 10^{13} Bq of a controlled material and including shielding as an integral part of its construction, and with a source that is not inside the shielding during the operation of the irradiator	12 609
7	Facility for the production, processing, use, storage, management or disposal of: (a) unsealed sources for which the result worked out using the steps mentioned in subregulation 6(2) is greater than 10^6 ;	25 220

Facility licence application fees—prescribed radiation facilities (general)		
Item	Kind of prescribed radiation facility	Amount (\$)
	or	
	(b) sealed sources for which the result worked out using the steps mentioned in subregulation 6(2) is greater than 10 ⁹	
<hr/>		
	Note:	If the application is for a licence that authorises persons to do 2 or more of the things mentioned in paragraphs 30(1)(a), (b), (c), (d) and (e) of the Act in relation to the prescribed radiation facility, the amount of the application fee for the licence is the sum of the amounts of the application fees that would have been applicable if applications for separate licences had been made for each of those things—see subregulation 40C(3).

Part 2—Fees—other

2 Facility licence application fees—prescribed radiation facilities (other)

The following table sets out the amount of the application fee for a facility licence that authorises a person to do a thing mentioned in an item in the table in relation to a prescribed radiation facility.

Facility licence application fees—prescribed radiation facilities (other)		
Item	Thing authorised to be done by licence	Amount (\$)
1	De-commissioning a controlled facility, being a prescribed radiation facility that was formerly used as a nuclear or atomic weapon test site	42 032
2	Disposing of or abandoning a controlled facility, being a prescribed radiation facility that was formerly used as a nuclear or atomic weapon test site	28 021
3	De-commissioning a controlled facility, being a prescribed radiation facility that was formerly used for the mining, processing, use, storage, management or disposal of radioactive ores	42 032
4	Disposing of or abandoning a controlled facility, being a prescribed radiation facility that was formerly used for the mining, processing, use, storage, management or disposal of radioactive ores	28 021

Schedule 3C—Source licence application fees

(regulation 40D)

Part 1—Kinds of controlled apparatus or controlled material

1 Source licence application fees—kinds of controlled apparatus or controlled material

The following table sets out kinds of controlled apparatus and controlled materials for the purpose of determining the amount of an application fee for a source licence.

Source licence application fees—kinds of controlled apparatus or controlled material	
Item	Controlled apparatus or controlled material
Group 1	
1	Sealed source for calibration purposes of activity of 40 MBq or less
2	Sealed source in a fully enclosed analytical device
3	Sealed source with activity of 400 MBq or less in a fixed gauge
4	Sealed source in a blood irradiator
5	Sealed source in a bone densitometer
6	Sealed source that: (a) is in storage and awaiting disposal; and (b) has a nuclide with a maximum activity of not more than 10^9 times the activity value for that nuclide set out in an item in the table in clause 2 of Schedule 2
7	Unsealed source, or sources, in a laboratory or premises, having nuclides of 1 kind only with a maximum activity not more than 100 times the activity value for that nuclide set out in an item in the table in clause 2 of Schedule 2
8	Unsealed source, or sources, in a laboratory or premises, having nuclides such that when the maximum activity of each nuclide in the source, or sources, is divided by the activity value for that nuclide set out in an item in the table in clause 2 of Schedule 2, the total of the results for all nuclides in the source, or sources, is not more than 100

Schedule 3C Source licence application fees

Part 1 Kinds of controlled apparatus or controlled material

Source licence application fees—kinds of controlled apparatus or controlled material	
Item	Controlled apparatus or controlled material
9	Mammographic x-ray unit
10	Conventional dental x-ray unit
11	X-ray unit used for bone densitometry
12	X-ray unit used for veterinary radiography
13	Fully enclosed x-ray analysis unit
14	Baggage inspection x-ray unit
15	Mobile or portable medical x-ray unit
16	Magnetic field non-destructive testing device
17	Induction heater or induction furnace
18	Industrial radiofrequency heater or welder
19	Radiofrequency plasma tube
20	Microwave or radiofrequency diathermy equipment
21	Industrial microwave or radiofrequency processing system
22	Optical source, other than a laser product, emitting ultraviolet radiation, infra-red or visible light.
23	Laser product with an accessible emission level more than the accessible emission limit of a Class 3R laser product, as set out in Australian/New Zealand Standard AS/NZS IEC 60825.1:2011 <i>Safety of laser products, Part 1: Equipment classification and requirements</i>
24	Optical fibre communication system exceeding Hazard Level 3R, as set out in Australian/New Zealand Standard AS/NZS IEC 60825.2:2011 <i>Safety of laser products, Part 2: Safety of optical fibre communication systems (OFCS)</i>
24A	Sealed source of controlled material not mentioned in another item of this Schedule, dealings with which have the potential for accidental exposure but the exposure would be unlikely to exceed the dose limits mentioned in regulations 59 and 62
24B	Controlled apparatus that produces ionizing radiation not mentioned in another item of this Schedule, dealings with which have the potential for accidental exposure but the exposure would be unlikely to exceed the dose limits mentioned in regulations 59 and 62
Group 2	
25	Sealed source for calibration purposes of activity of more than 40 MBq

Source licence application fees—kinds of controlled apparatus or controlled material	
Item	Controlled apparatus or controlled material
26	Sealed source in a partially enclosed analytical device
27	Sealed source of activity of more than 400 MBq in a fixed gauge
28	Sealed source in a mobile gauge
29	Sealed source for medical or veterinary diagnostic nuclear medicine use
30	Unsealed source, or sources, in a laboratory or premises, having nuclides of 1 kind only with a maximum activity of more than 100, but not more than 10 000, times the activity value for that nuclide set out in an item in the table in clause 2 of Schedule 2
31	Unsealed source, or sources, in a laboratory or premises, having nuclides such that when the maximum activity of each nuclide in the source, or sources, is divided by the activity value for that nuclide set out in an item in the table in clause 2 of Schedule 2, the total of the results for all nuclides in the source, or sources, is more than 100 but not more than 10 000
32	Unsealed sources used for tracer studies
33	Industrial radiography x-ray unit
34	Fixed medical x-ray unit, including a unit used for fluoroscopy, tomography and chiropractic radiography
35	Partially enclosed x-ray analysis unit
36	Medical therapy simulator
37	CT scanner
37A	Sealed source of controlled material not mentioned in another item of this Schedule, dealings with which have the potential for accidental exposure that is likely to exceed a dose limit mentioned in regulations 59 and 62 but that is unlikely to result in acute effects
37B	Controlled apparatus that produces ionizing radiation not mentioned in another item of this Schedule, dealings with which have the potential for accidental exposure that is likely to exceed a dose limit mentioned in regulations 59 and 62 but that is unlikely to result in acute effects
Group 3	
38	Sealed source for industrial radiography
39	Sealed source for medical and veterinary radiotherapy
40	Sealed source in a bore hole logger
41	Sealed source of controlled material not mentioned in another item of this

Schedule 3C Source licence application fees

Part 1 Kinds of controlled apparatus or controlled material

Source licence application fees—kinds of controlled apparatus or controlled material

Item	Controlled apparatus or controlled material
	Schedule, dealings with which have the potential for accidental exposure that is likely to exceed a dose limit mentioned in regulations 59 and 62 and that is likely to result in acute effects
42	Unsealed source, or sources, in a laboratory or premises, having nuclides of 1 kind only with a maximum activity of more than 10 000, but not more than 1 000 000, times the activity value for that nuclide set out in an item in the table in clause 2 of Schedule 2
43	Unsealed source, or sources, in a laboratory or premises, having nuclides such that when the maximum activity of each nuclide in the source, or sources, is divided by the activity value for that nuclide set out in an item in the table in clause 2 of Schedule 2, the total of the results for all nuclides in the source, or sources, is more than 10 000 but not more than 1 000 000
44	Veterinary or medical radiotherapy unit
45	Controlled apparatus that produces ionizing radiation not mentioned in another item of this Schedule, dealings with which have the potential for accidental exposure that is likely to exceed a dose limit mentioned in regulations 59 and 62 and that is likely to result in acute effects

Note: Regulation 3 defines *sealed source* and *unsealed source*.

Part 2—Fees

2 Source licence application fees—amount of fees

The following table sets out amounts for the purpose of determining the amount of an application fee for a source licence.

Note: The amount of an application fee for a source licence is based on:

- (a) the number of controlled apparatus or controlled materials in the same location to be dealt with under the application; and
- (b) the Group in the table in clause 1 that covers the controlled apparatus or controlled materials.

Source licence application fees—amount of fees		
Item	Number of controlled apparatus or controlled materials in the same location to be dealt with under application	Amount (\$)
1	For less than 4 controlled apparatus or controlled materials from:	
	(a) Group 1	700
	(b) Group 2	2 801
	(c) Group 3	8 405
2	For more than 3, but less than 11, controlled apparatus or controlled materials from:	
	(a) Group 1	1 819
	(b) Group 2	5 604
	(c) Group 3	16 811
3	For 11 or more controlled apparatus or controlled materials from:	
	(a) Group 1	3 503
	(b) Group 2	10 533
	(c) Group 3	30 822

Schedule 4—Identity card

(regulation 64)

Australian Radiation Protection and Nuclear Safety Act 1998

This identifies *(name of inspector)*, whose photograph and signature appear below, as an inspector appointed by the CEO of the Australian Radiation Protection and Nuclear Safety Agency under subsection 62(1) of the *Australian Radiation Protection and Nuclear Safety Act 1998*.

(photograph)

(signature of inspector)

(signature of the CEO)

Valid until *(date when appointment ceases)*

Dated

Schedule 5—International agreements

(regulation 65)

Item	Title of agreement	Date agreement signed on behalf of Australia
1	Agreement between the Government of Australia and the Government of New Zealand concerning the Transfer of Uranium	14 September 1999
2	Agreement for Cooperation between Australia and the United States of America concerning Technology for the Separation of Isotopes of Uranium by Laser Excitation, Agreed Minute, and Exchange of Notes	28 October 1999

Schedule 6—Non-applicable State and Territory laws

(regulation 65A)

1. *Radiation Control Act 1990* (NSW).
2. **Radiation Act 2005** (Vic).
3. *Radiation Safety Act 1999* (Qld).
4. *Radiation Safety Act 1975* (WA).
5. *Radiation Protection and Control Act 1982* (SA).
6. *Radiation Protection Act 2005* (Tas).
7. *Radiation Protection Act 2006* (ACT).
8. *Radiation Protection Act* (NT).

Dictionary

(regulation 3)

absorbed dose means the energy absorbed per unit mass by matter from ionizing radiation that impinges upon it.

Note: See Annex B to the *Recommendations for Limiting Exposure to Ionizing Radiation*.

Act means the *Australian Radiation Protection and Nuclear Safety Act 1998*.

action level means an intervention level applied to exposure to radiation.

application fee, for a licence, includes the ordinary costs of processing the application for the licence, but does not include any additional expenses that may be incurred by the CEO in respect of any peer review or consultancy that the CEO considers necessary for the purpose of deciding whether to issue the licence.

CEO see section 13 of the Act.

Code of Practice and Safety Guide for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing (2005) (Radiation Protection Series No. 9) means the document of that title, published on behalf of the Commonwealth by the CEO of ARPANSA and available at <http://www.arpansa.gov.au>.

Code of Practice for the Disposal of Radioactive Waste by the User means the document of that title published in 1985 by the NHMRC as in force when these regulations commence.

Code of Practice for the Near-Surface Disposal of Radioactive Waste in Australia means the document of that title published in 1992 by the NHMRC as in force when these regulations commence.

Code of Practice for the Safe Transport of Radioactive Material (2008) (Radiation Protection Series No. 2) means the document of that title, published on behalf of the Commonwealth by the CEO of ARPANSA and available at <http://www.arpansa.gov.au>.

Code of Practice for the Security of Radioactive Sources (2007) (Radiation Protection Series No. 11) means the document of that title, published on behalf of the Commonwealth by the CEO of ARPANSA and available at <http://www.arpansa.gov.au>.

committed effective doses means the effective dose which a person is committed to receive from an intake of radioactive material.

Note: See Annex B to the *Recommendations for Limiting Exposure to Ionizing Radiation*.

Committee means the Radiation Health Committee or the Nuclear Safety Committee.

controlled apparatus see section 13 of the Act.

controlled facility see section 13 of the Act.

controlled material see section 13 of the Act.

controlled person see section 13 of the Act.

Council means the Radiation Health and Safety Advisory Council created by section 19 of the Act.

deal with see section 13 of the Act.

dose includes absorbed dose, equivalent dose or effective dose.

Note: See Annex B to the *Recommendations for Limiting Exposure to Ionizing Radiation*.

effective dose means a measure of dose which takes into account both the type of radiation involved and the radiological sensitivities of the organs and tissues irradiated.

Note: See Annex B to the *Recommendations for Limiting Exposure to Ionizing Radiation*.

equivalent dose means a measure of dose in organs and tissues which takes into account the type of radiation involved.

Note: See Annex B to the *Recommendations for Limiting Exposure to Ionizing Radiation*.

excluded exposure, for the definition of ***occupational exposure***, means the component of exposure which arises from natural

background radiation, provided that any relevant action level or levels for the workplace are not exceeded and that the CEO does not prohibit its exclusion.

exposure means the circumstance of being exposed to radiation.

external exposure means exposure to radiation from a source outside the human body.

holder, of a licence, means the controlled person to whom the licence is issued.

ionizing radiation see section 13 of the Act.

irradiator means a device that contains a controlled material that gives controlled dose of radiation to any target material.

medical exposure means the exposure of a person to radiation received as a patient undergoing medical diagnosis or therapy, or as a volunteer in medical research, or non-occupational exposure received as a consequence of assisting an exposed patient.

modification see section 13 of the Act.

National Standard for Limiting Occupational Exposure to Ionizing Radiation means the document of that title that was republished in 2002 as one of the documents making up the document, *Recommendations for Limiting Exposure to Ionizing Radiation (1995) and National Standard for Limiting Occupational Exposure to Ionizing Radiation (Radiation Protection Series No. 1)*, published on behalf of the Commonwealth by the CEO of ARPANSA and available at <http://www.arpansa.gov.au>.

NHMRC means the National Health and Medical Research Council established by section 6 of the *National Health and Medical Research Council Act 1992*.

NOHSC means the National Occupational Health and Safety Commission established by section 6 of the *National Occupational Health and Safety Commission Act 1985*.

non-ionizing radiation see section 13 of the Act.

Nuclear Safety Committee see section 25 of the Act.

occupational exposure means exposure of a person to radiation which occurs in the course of the person's work and which is not excluded exposure.

public exposure means the exposure of a person to radiation that is neither occupational nor medical exposure.

Radiation Health Committee see section 22 of the Act.

Radiation Protection Standard for Occupational Exposure to Ultraviolet Radiation (2006) (Radiation Protection Series No. 12) means the document of that title, published on behalf of the Commonwealth by the CEO of ARPANSA and available at <http://www.arpansa.gov.au>.

Recommendations for Limiting Exposure to Ionizing Radiation means the document titled *Recommendations for Limiting Exposure to Ionizing Radiation (1995)* that was republished in 2002 as one of the documents making up the document, *Recommendations for Limiting Exposure to Ionizing Radiation (1995) and National Standard for Limiting Occupational Exposure to Ionizing Radiation (Radiation Protection Series No. 1)*, published on behalf of the Commonwealth by the CEO of ARPANSA and available at <http://www.arpansa.gov.au>.

relevant change, for regulations 51 and 52, means a change to:

- (a) the details in the application for the licence; or
- (b) a modification of the source or facility mentioned in the licence.

relevant period, for regulation 60, means:

- (a) for a controlled person—5 years; or
- (b) for a member of the public—1 year.

Remuneration Tribunal means the Remuneration Tribunal established by section 4 of the *Remuneration Tribunal Act 1973*.

same location, in relation to a controlled apparatus or controlled material—see subregulation 40D(3).

sealed source means controlled material permanently contained in a capsule, or closely bound in a solid form, which is strong enough to be leak-tight for:

- (a) the intended use of the controlled material; and
- (b) any foreseeable abnormal events likely to affect the controlled material.

unsealed source means controlled material that is not a sealed source.

waste package, in relation to controlled material contained or to be contained in a nuclear waste storage facility or a nuclear waste disposal facility, means the waste form of the controlled material and its container as prepared for handling, transport, storage or disposal.

Endnotes

Endnote 1—About the endnotes

Endnotes

Endnote 1—About the endnotes

The endnotes provide information about this compilation and the compiled law.

The following endnotes are included in every compilation:

Endnote 1—About the endnotes

Endnote 2—Abbreviation key

Endnote 3—Legislation history

Endnote 4—Amendment history

Endnotes about misdescribed amendments and other matters are included in a compilation only as necessary.

Abbreviation key—Endnote 2

The abbreviation key sets out abbreviations that may be used in the endnotes.

Legislation history and amendment history—Endnotes 3 and 4

Amending laws are annotated in the legislation history and amendment history.

The legislation history in endnote 3 provides information about each law that has amended (or will amend) the compiled law. The information includes commencement details for amending laws and details of any application, saving or transitional provisions that are not included in this compilation.

The amendment history in endnote 4 provides information about amendments at the provision (generally section or equivalent) level. It also includes information about any provision of the compiled law that has been repealed in accordance with a provision of the law.

Misdescribed amendments

A misdescribed amendment is an amendment that does not accurately describe the amendment to be made. If, despite the misdescription, the amendment can be given effect as intended, the amendment is incorporated into the compiled law and the abbreviation “(md)” added to the details of the amendment included in the amendment history.

If a misdescribed amendment cannot be given effect as intended, the amendment is set out in the endnotes.

Endnote 2—Abbreviation key

Endnote 2—Abbreviation key

A = Act	orig = original
ad = added or inserted	par = paragraph(s)/subparagraph(s) /sub-subparagraph(s)
am = amended	pres = present
amdt = amendment	prev = previous
c = clause(s)	(prev...) = previously
C[x] = Compilation No. x	Pt = Part(s)
Ch = Chapter(s)	r = regulation(s)/rule(s)
def = definition(s)	Reg = Regulation/Regulations
Dict = Dictionary	reloc = relocated
disallowed = disallowed by Parliament	renum = renumbered
Div = Division(s)	rep = repealed
exp = expires/expired or ceases/ceased to have effect	rs = repealed and substituted
F = Federal Register of Legislative Instruments	s = section(s)/subsection(s)
gaz = gazette	Sch = Schedule(s)
LI = Legislative Instrument	Sdiv = Subdivision(s)
LIA = <i>Legislative Instruments Act 2003</i>	SLI = Select Legislative Instrument
(md) = misdescribed amendment	SR = Statutory Rules
mod = modified/modification	Sub-Ch = Sub-Chapter(s)
No. = Number(s)	SubPt = Subpart(s)
o = order(s)	<u>underlining</u> = whole or part not commenced or to be commenced
Ord = Ordinance	

Endnotes

Endnote 3—Legislation history

Endnote 3—Legislation history

Name	FRLI registration or gazettal	Commencement	Application, saving and transitional provisions
37, 1999	18 Mar 1999	18 Mar 1999	
97, 1999	10 June 1999	10 June 1999	—
306, 2000	16 Nov 2000	16 Nov 2000	—
330, 2000	8 Dec 2000	5 Feb 2001	—
271, 2001	5 Oct 2001	5 Oct 2001	—
243, 2002	24 Oct 2002	24 Oct 2002	—
90, 2003	22 May 2003	22 May 2003	—
213, 2004	15 July 2004	15 July 2004	—
115, 2007	11 May 2007 (F2007L01083)	12 May 2007	—
234, 2008	3 Dec 2008 (F2008L04264)	4 Dec 2008	—
101, 2010	25 May 2010 (F2010L01072)	26 May 2010	—
174, 2010	2 July 2010 (F2010L01560)	3 July 2010	—
51, 2011	27 Apr 2011 (F2011L00644)	1 July 2011	—
44, 2012	10 Apr 2012 (F2012L00812)	1 July 2012	—
74, 2013	17 May 2013 (F2013L00796)	Sch 1 (item 3): 1 July 2013 (s 2)	—
78, 2014	16 June 2014 (F2014L00722)	1 July 2014 (s 2)	—
73, 2015	1 Jun 2015 (F2015L00776)	1 July 2015 (s 2)	—

Endnote 4—Amendment history

Endnote 4—Amendment history

Provision affected	How affected
Pt 1	
r 3	am No 78, 2014 rs No 73, 2015
r 3A	ad No 73, 2015
Part 2	
Division 1	
r. 4	am No 306, 2000; No 234, 2008; No 78, 2014; No 73, 2015
Division 2	
r. 6	am No 306, 2000; No 90, 2003; No 73, 2015
Division 2A	
Div. 2A of Part 2	ad. 2000 No. 306
r. 6A	ad. 2000 No. 306
Division 3	
r. 7	rs No 90, 2003 am No 73, 2015
r. 8	am No 306, 2000 rs No 90, 2003 am No 73, 2015
rr. 9–10	rep No 90, 2003
r. 11	rs No 90, 2003 am No 73, 2015
r. 36	am. 1999 No. 97; 2000 No. 330 rep. 2008 No. 234
Part 4	
Division 1	
r. 37	am. 2000 No. 306
r. 37A	am. 2000 No. 306
r. 38	am No 306, 2000; No 234, 2008; No 73, 2015

Endnotes

Endnote 4—Amendment history

Provision affected	How affected
Division 2	
r 39	am No 73, 2015
Division 2A	
Div. 2A of Part 4	ad. 1999 No. 97 rs. 2000 No. 306
r. 40A	ad. 1999 No. 97 rs. 2000 No. 306
r. 40B	ad No 97, 1999 rs No 306, 2000 am No 73, 2015
r. 40C	ad No 97, 1999 rs No 306, 2000 am No 73, 2015
r. 40D	ad No 97, 1999 rs No 306, 2000 am No 213, 2004; No 73, 2015
r. 40E	ad. 1999 No. 97 rep. 2000 No. 97
r. 40F	ad. 1999 No. 97 rep. 2000 No. 306
r. 40G	ad. 1999 No. 97 rep. 2000 No. 306
r. 40H	ad. 1999 No. 97 rep. 2000 No. 306
Division 4	
r. 47	rep. 2008 No. 234
r. 48	am No 271, 2001; No 234, 2008; No 73, 2015
r 49	rs No 73, 2015
r 50	rs No 73, 2015
r 51	rs No 73, 2015
r 52	am No 73, 2015

Endnote 4—Amendment history

Provision affected	How affected
r 53	am No 73, 2015
r. 54	rs. 2000 No. 306
r. 55	rs. 2000 No. 306
Division 5	
Div. 5 of Part 4	ad. 2000 No. 306
r. 55A	ad. 2000 No. 306
r. 55B	ad. 2000 No. 306
	am No 78, 2014
r. 55C	ad. 2000 No. 306
	am No 78, 2014
r. 55D	ad. 2000 No. 306
	rep No 78, 2014
Part 5	
Part 5 heading.....	rs No 73, 2015
Division 5.1	
Heading to Div. 5.1 of	ad. 2000 No. 330
Part 5	
r. 56	rs. 2000 No. 330
Division 5.2	
Heading to Div. 5.2 of	ad. 2000 No. 330
Part 5	
r. 57	rs. 2000 No. 330
r. 58	am No 306, 2000; No 234, 2008; No 73, 2015
r 59	am No 234, 2008
r 60	am No 73, 2015
r 61	am No 73, 2015
r 62	am No 73, 2015
Division 5.3	
Division 5.3	ad No 330, 2000
Division 5.3 heading.....	rs No 73, 2015
r. 62A	ad No 330, 2000

Endnotes

Endnote 4—Amendment history

Provision affected	How affected
	am No 271, 2001; No 234, 2008; No 73, 2015
Part 7	
Part 7	ad. 2000 No. 306
r. 65	ad. 2000 No. 306
r. 65A	ad. 2001 No. 271
r. 66	ad. 2000 No. 306
Note to r. 66	rs. 2008 No. 234
Schedule 1	
Schedule 1	am No 243, 2002; No 234, 2008; No 78, 2014; No 73, 2015
Schedule 2	
Schedule 2 heading	rs No 90, 2003
Schedule 2	am No 97, 1999; No 306, 2000; No 271, 2001; No 234, 2008; No 78, 2014; No 73, 2015
Schedule 3	
Schedule 3	am No 73, 2015
Schedule 3A	
Schedule 3A	ad No 97, 1999 rs No 306, 2000 am No 90, 2003; No 213, 2004; No 115, 2007; No 101, 2010; No 51, 2011; No 44, 2012; No. 74, 2013; No 78, 2014; No 73, 2015
Schedule 3B	
Schedule 3B	ad No 97, 1999 rs No 306, 2000 am No 90, 2003; No 213, 2004; No 101, 2010; No 51, 2011; No 44, 2012; No. 74, 2013; No 78, 2014; No 73, 2015
Schedule 3C	
Schedules 3C	ad No 97, 1999 rs No 306, 2000 am No 213, 2004; No 234, 2008; No 101, 2010; No 174, 2010; No 51, 2011; No 44, 2012; No. 74, 2013; No 78, 2014; No 73, 2015
Schedules 3D–3F	ad. 1999 No. 97 rep. 2000 No. 306

Endnote 4—Amendment history

Provision affected	How affected
Schedule 5	
Schedule 5	ad. 2000 No. 306
Schedule 6	
Schedule 6	ad. 2001 No. 271
	am. 2008 No. 234; No 78, 2014
Dictionary	
Dictionary.....	am. 1999 No. 97; 2000 Nos. 306 and 330; 2001 No. 271; 2003 No. 90; 2008 No. 234