

Reprint
as at 7 March 2017



Radiation Protection Regulations 1982 (SR 1982/72)

Radiation Protection Regulations 1982: revoked, on 7 March 2017, by section 97(c) of the Radiation Safety Act 2016 (2016 No 6).

David Beattie, Governor-General

Order in Council

At the Government Buildings at Wellington this 29th day of March 1982

Present:

The Right Hon R D Muldoon presiding in Council

Pursuant to section 31 of the Radiation Protection Act 1965, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, hereby makes the following regulations.

Contents

	Page
1 Title and commencement	3
2 Interpretation	3
Part 1	
Transport of radioactive material	
3 Transport of radioactive material	5

Note

Changes authorised by subpart 2 of Part 2 of the Legislation Act 2012 have been made in this official reprint.
Note 4 at the end of this reprint provides a list of the amendments incorporated.

These regulations are administered by the Ministry of Health.

Part 2		
Exemptions		
4	Partial exemption of certain radioactive materials	5
5	Exemption of certain irradiating apparatus	6
6	Special exemptions for ships and aircraft	7
7	Special exemptions for licensees and employers of licensees	8
8	Provision for further exemptions	8
Part 3		
General obligations of owners, licensees, and other persons		
9	Equipment and supervision	9
10	Radiation Safety Officers	9
11	General precautions to be taken by licensee	10
12	Storage and marking of materials, containers, and places	11
13	Sealed radioactive materials	12
14	Disposal of waste products	12
15	Disposal of containers	13
16	Registers, records, and returns	13
17	Access to information	13
Part 4		
Particular provisions for protection		
18	Exposure to radiation	14
19	Action to be taken in event of over exposure	14
20	Measurement of radiation doses	16
21	Controlled areas	17
Part 5		
Radiotherapy and diagnosis		
22	Radiotherapy records	18
23	Restrictions on use of irradiating apparatus in radiotherapy	18
24	Special precautions to be taken with irradiating apparatus used in radiotherapy	19
25	Special precautions to be taken with irradiating apparatus used in diagnosis	19
Part 6		
Miscellaneous provisions		
26	Forms	20
27	Fees	20
28	Revocations	21
Schedule 1		
Activities and concentrations of radioactive materials		
Schedule 2		
Labels and warning signs		

Schedule 3
Exempted articles

29

Regulations

1 Title and commencement

- (1) These regulations may be cited as the Radiation Protection Regulations 1982.
- (2) These regulations shall come into force on 1 April 1982.

2 Interpretation

- (1) In these regulations, unless the context otherwise requires,—

Act means the Radiation Protection Act 1965

activity means the number of nuclear transformations per unit time, expressed in becquerels, occurring in a quantity of a radioactive substance

provided that, when the transformation of the nuclei of a radionuclide gives rise to 1 or more further radionuclides, the number of becquerels means those of the first (or parent) radionuclide only

approved medical practitioner means a medical practitioner with special knowledge of the effects on the human body of ionising radiation, who has been approved by the Minister, on the advice of the Radiation Protection Advisory Council, for the purpose of conducting medical examinations required by these regulations

controlled area means any area so designated under regulation 21

dose equivalent, in relation to the human body or any specified organ of the human body, means the measure of the effect of ionising radiation on the body or that organ, as defined in Report 33 of the International Commission on Radiation Units and Measurements

dose equivalent commitment, in relation to the human body or any specified organ of the body, means the dose equivalent estimated, in accordance with the data provided by the International Commission on Radiological Protection in the report of its committee II (ICRP Publication 30), to result from intake by the body of a quantity of radioactive substance, having regard to the physical and chemical state of such substance and the manner of intake

fissile material means plutonium –238, plutonium –239, plutonium –241, uranium –233, uranium –235, or any material containing any of the foregoing; but does not include unirradiated natural uranium or unirradiated depleted uranium

half-life means the time in which one-half of the atoms of a given initial quantity of a radionuclide undergo nuclear transformation

IAEA Transport Regulations means the Regulations for the Safe Transport of Radioactive Materials, published in 1973 by the International Atomic Energy Agency in Vienna

licensee means a person holding a licence issued under the Act and for the time being in force

nuclear transformation means any change that occurs spontaneously in the nucleus of an atom and that results in the emission of ionising radiation

owner includes the administrator (within the meaning of the Administration Act 1969) of the estate of a deceased owner while any radioactive material or any irradiating apparatus forms part of that estate

quality of the radiation means the measure of the properties of the radiation whereby the following are determined:

- (a) the ability of the radiation to penetrate matter:
- (b) the rate of absorption of the energy of the radiation in matter:
- (c) the resulting biological effectiveness of the radiation

radiation output means the intensity of radiation, measured at a point from which an absorbed dose of the radiation may be determined

reference dose equivalent means a dose equivalent, received in 1 year, of—

- (a) 50 millisieverts (mSv) in any part of the body except the hands, forearms, feet, or lower legs; or
- (b) 500 mSv to the hands, forearms, feet, or lower legs:
provided that the dose equivalent received by any other part of the body does not exceed the difference between 50 mSv and 0.06 of the dose equivalent received by the hands, forearms, feet, or lower legs

In determining the dose equivalent received in any given period, the dose equivalent commitment arising from contamination by any radioactive substance shall be added to the dose equivalent received from external irradiation

relative activity means the number found in relation to any given quantity of a radionuclide by dividing the activity of that quantity by the activity shown in the first column of the table in clause 2 of Schedule 1 for the group to which the radionuclide belongs as set out in the second column of that table

relative concentration, in relation to any given concentration of a radionuclide, means the number found in relation to that concentration of the radionuclide by dividing the concentration of that radionuclide by the concentration shown in the first column of the table in clause 3 of Schedule 1 for the group to which the radionuclide belongs as set out in the second column of that table

sealed radioactive material means any encapsulated radioactive material that is intended to be used to provide an external radiation field without any release of radioactive substances

teletherapy apparatus means an irradiating apparatus permanently mounted in a room and consisting of a sealed radioactive material shielded in all directions except for an aperture through which a beam of radiation may be allowed to emerge for use in radiotherapy

X-ray tube means any evacuated vessel in which electrons are accelerated through a potential difference on to matter for the purpose of producing X-rays.

- (2) Subject to subclauses (3) and (4), every reference in these regulations to the IAEA Transport Regulations is a reference to those regulations, together with any amendments, in force at the date of the making of these regulations.
- (3) Where, after the making of these regulations, the IAEA Transport Regulations are amended, or any regulations are made in substitution for those regulations, the Minister may, by notice in the *Gazette*, adopt that amendment or those substituted regulations for the purposes of these regulations, either wholly or in part and either with or without any modifications.
- (4) On the publication of any such notice in the *Gazette*, every reference in these regulations to the IAEA Transport Regulations shall be read subject to the terms of that notice.
- (5) Subclauses (2) to (4) shall apply with any necessary modifications to any recommendation, report, or other publication of the International Commission on Radiation Units and Measurements or the International Commission on Radiological Protection referred to in these regulations.

Part 1

Transport of radioactive material

3 Transport of radioactive material

No person shall transport any radioactive material into New Zealand or through New Zealand, by any means whatever, unless that radioactive material is packed, labelled, marked, and transported in accordance with the IAEA Transport Regulations.

Part 2

Exemptions

4 Partial exemption of certain radioactive materials

- (1) Subject to subclause (2) and regulations 14(2) and 15, nothing in section 12 or section 13(1) of the Act, or in these regulations, shall apply to the manufacture, production, sale, storage, transport, or use, of any radioactive material that contains—
 - (a) either—

- (i) a quantity of a radionuclide not exceeding in activity the activity set for radionuclides in the group in which it appears in the table in clause 2 of Schedule 1; or
 - (ii) a mixture of radionuclides the sum of the relative activities of which does not exceed 1; or
- (b) either—
 - (i) a radionuclide at a concentration not exceeding the concentration set for radionuclides in the group in which it appears in the table in clause 3 of Schedule 1; or
 - (ii) a mixture of radionuclides the sum of the relative concentrations of which does not exceed 1.
- (2) Subclause (1)(a) shall not apply unless—
 - (a) the following conditions exist:
 - (i) the radioactive material, if unpackaged, or the package containing the radioactive material, bears a label as described in clause 2 of Schedule 2; and
 - (ii) the radioactive material is not contained in an article the use of which would require it to be carried by any person, or to be at a distance of less than 300 millimetres from any person; or
 - (b) the radioactive material contains a radionuclide, or a mixture of radionuclides, the activity of which does not exceed 0.1 of the activity specified in the said subclause (1)(a) or 3 kilobecquerels, whichever is the greater.
- (3) Nothing in section 12 or section 13(1) of the Act, or in these regulations, shall apply to the sale, import, export, storage, transport otherwise than for the purposes of exportation, or use of any article of a kind described in the first column of Schedule 3 of these regulations if and so long as the article conforms with the conditions set out in the second column of that schedule in relation thereto:

provided that regulation 14(2) shall apply to the articles described in Part 2 of that schedule.
- (4) Nothing in section 13(1) of the Act, or in these regulations, shall apply to the use by any person, with the approval of the Director-General and in accordance with any conditions that the Director-General may impose (which may include conditions regarding the attachment of labels and for ensuring safe disposal), of an article of a type specified by the Director-General, which contains a radioactive material, but which, in the opinion of the Director-General, does not constitute a significant hazard to any person.

5 Exemption of certain irradiating apparatus

Nothing in section 14 or section 15 of the Act, or in these regulations, shall apply to—

- (a) any irradiating apparatus that does not contain a radioactive material, other than a radioactive material exempted by regulation 4, and in which there is no electric potential difference exceeding 5 kilovolts:
- (b) any television receiver or other high-voltage vacuum-tube visual display device that does not produce externally a dose equivalent rate exceeding 5 microsieverts per hour while operating.

6 Special exemptions for ships and aircraft

- (1) Nothing in section 12 or section 13 of the Act, or in these regulations, shall apply to any radioactive material that is part of the equipment or stores of a ship or aircraft belonging to a country other than New Zealand, unless any of the radioactive material is removed from that ship or aircraft in New Zealand, or the radioactive material is—
 - (a) part of a nuclear reactor; or
 - (b) pyrophoric or associated with pyrophoric material; or
 - (c) explosive or associated with explosive material; or
 - (d) a radioactive material that, if transported in accordance with the IAEA Transport Regulations, would require notification to the competent authority; or
 - (e) fissile material that is not exempt from the IAEA Transport Regulations.
- (2) Nothing in section 12 or section 13 of the Act, or in these regulations, shall apply to any radioactive material brought or coming into New Zealand in any ship or aircraft if the destination of that radioactive material is outside New Zealand and the radioactive material—
 - (a) is transported, while in New Zealand, in accordance with the requirements of the IAEA Transport Regulations; and
 - (b) is not removed from the ship or aircraft except for the purpose of being exported from New Zealand on the next available ship or aircraft; and
 - (c) is not a radioactive material coming within any of paragraphs (b) to (e) of subclause (1).
- (3) Nothing in section 15 of the Act, or in these regulations, shall apply to any irradiating apparatus that is part of the equipment or stores of any ship or aircraft belonging to a country other than New Zealand and that is not used for the purpose of irradiating persons who are not members of the crew of or passengers on that ship or aircraft.
- (4) Nothing in section 12 or section 13 or section 15 of the Act, or in these regulations, shall apply to any radioactive material or any irradiating apparatus that is on or in any ship or aircraft belonging to the armed forces of a country other than New Zealand.

- (5) Nothing in this regulation shall permit the entry into New Zealand of any ship or aircraft if that entry is prohibited by or under any enactment (other than the Act) or in exercise of the prerogative of the Crown.

7 Special exemptions for licensees and employers of licensees

- (1) Nothing in section 12 of the Act shall apply to the manufacture of radioactive materials by a person by means of an irradiating apparatus that he is licensed to use.
- (2) Nothing in section 13 or section 15 of the Act shall apply to any person who uses a radioactive material or an irradiating apparatus only by employing for the purpose a person licensed or otherwise permitted by these regulations to use that radioactive material or irradiating apparatus.

8 Provision for further exemptions

- (1) In any case where the Minister, upon application being made to him in writing, is satisfied that strict compliance with these regulations is not possible, or would involve expenditure or hardship out of proportion to the degree of freedom from radiation hazard to be achieved by such compliance, he may, on the recommendation of the Council, exempt any particular person from compliance with specified provisions of these regulations, or may modify the requirements of any such specified provision if he is satisfied that adequate freedom from radiation hazards can, and will, otherwise be secured.
- (2) Any exemption or modification granted by the Minister in accordance with subclause (1) may be revoked by him at any time on the advice of the Council that the grounds on which the exemption or modification was granted no longer exist, or no longer warrant the granting of the exemption or modification.
- (3) Without restricting subclause (1), the Minister may from time to time, on the recommendation of the Council given on the ground that the form and manner of use of the article to which the recommendation relates sufficiently limits any radiation hazard resulting from that use, by notice in the *Gazette*, exempt from all or any of the provisions of sections 12 and 13(1) of the Act and from all or any of the provisions of these regulations, either absolutely or subject to such conditions, or in relation to such purpose or use, as may be stated in the notice, any specified article or class of article falling within any of the following descriptions:
 - (a) instruments for measuring or detecting materials, or environmental and other physical conditions, containing radioactive material as a source of ionisation or radiation necessary for their operation:
 - (b) devices containing radioactive material for the purpose of ionising a gas:
 - (c) sealed radioactive materials prepared for purposes of instruction or demonstration:

- (d) devices for the production of light that contain radioactive material as a source of energy.
- (4) The minister may in like manner, on the recommendation of the Council, revoke any such notice.

Part 3

General obligations of owners, licensees, and other persons

9 Equipment and supervision

- (1) The owner of any radioactive material or any irradiating apparatus shall take all reasonable steps to ensure that there is at all times a suitably licensed person responsible for the safe care of the radioactive material or the irradiating apparatus, and shall provide adequate equipment and materials to enable the storage, use, transportation, and disposal of the radioactive material or the irradiating apparatus to be carried out safely.
- (2) Every licensee shall be responsible for the safe care of any radioactive material or any irradiating apparatus under his control, and shall retain that responsibility until it has been assumed by another suitably licensed person in accordance with subclause (1), or until it has been dealt with in accordance with subclause (4), as the case may require.
- (3) Any person who employs more than 1 licensee shall either—
 - (a) define clearly their areas of respective responsibility; or
 - (b) if this is not practicable, then appoint one of them to supervise compliance with the requirements of the Act or with these regulations by the other or others.
- (4) If there is for the time being, or soon will be, no suitably licensed person available for the purposes of subclause (1), the owner of the radioactive material or the irradiating apparatus shall—
 - (a) store it to the satisfaction of the Director-General; or
 - (b) in the case of an irradiating apparatus, render it permanently inoperative; or
 - (c) in the case of radioactive material, dispose of it in accordance with these regulations—

and he shall either store or deliver to the Director-General any records appertaining to that radioactive material or that irradiating apparatus, and notify the Director-General of any action taken under this subclause.

10 Radiation Safety Officers

- (1) Subject to subclause (3), a licensee may appoint or procure the appointment of a person to be called a Radiation Safety Officer in respect of any radioactive material or any irradiating apparatus used by the licensee or in respect of any

particular area in which that material or that apparatus may from time to time be.

- (2) Every Radiation Safety Officer shall take all reasonable steps to ensure that the requirements of the Act and of any regulations made under the Act (including these regulations), and any conditions of the licence held by the licensee appointing him or procuring his appointment are complied with, but without limiting the liability of the licensee.
- (3) Not more than 1 person shall be appointed to be a Radiation Safety Officer in respect of the same undertaking, the same radioactive materials, or the same irradiating apparatus at any one time or in respect of any one period; but a person may be appointed to be the deputy of a Radiation Safety Officer to the end that the deputy shall exercise the functions of the Radiation Safety Officer on the death or incapacity or during the absence of that Radiation Safety Officer.

11 General precautions to be taken by licensee

- (1) Every licensee shall—
 - (a) take all reasonable steps to ensure that every person who uses any radioactive material or any irradiating apparatus for which the licensee is responsible complies with the provisions of these regulations and with any further condition to which his licence is subject:
 - (b) fully instruct every such person regarding the radiation hazards of his work, and the precautions to be taken in relation thereto:
 - (c) cause copies of the Act, these regulations, and any conditions to which his licence is subject to be placed in a position where they may conveniently be read by all such persons:
 - (d) take all reasonable steps to ensure that no person is employed on work with any radioactive material or any irradiating apparatus while he is suffering from a mental or physical disability that may render him a hazard to himself or others:
 - (e) provide, or procure the provision of, all articles and materials, including adequate structural shielding, necessary for the purpose of satisfying the requirements of these regulations:
 - (f) take all reasonable steps to prevent any unauthorised person from tampering with any radioactive material or any irradiating apparatus for which he is responsible:
 - (g) take all reasonable steps to prevent the loss, or the release beyond his control, of any radioactive material for which he is responsible, otherwise than in accordance with regulation 14 or the terms of his licence or as permitted by the Director-General.
- (2) In the event of the loss, or the release beyond the control of the licensee, of any radioactive material, otherwise than in accordance with regulation 14 or the

terms of his licence or as permitted by the Director-General, the licensee shall forthwith—

- (a) take all reasonable steps to recover the material, to issue such warnings as he considers appropriate, to minimise the radiation dose that any person might receive in consequence of that loss or release, and to reduce as far as possible any resulting radioactive contamination; and
- (b) estimate the dose equivalent that any person might receive in consequence of that loss or release; and
- (c) either—
 - (i) if he estimates that any such dose equivalent exceeds the reference dose equivalent, as soon as practicable notify the Director-General of that loss or release, of the action he has taken pursuant to paragraph (a) and the result of such action, of his estimate of the dose equivalent received by any person who might have been affected by the loss or release, of any measurements on which such estimate is based, and of any other measurements made for the purpose of controlling or evaluating radiation hazards; or
 - (ii) if he estimates that no such dose equivalent exceeds the reference dose equivalent, within 7 days of the occurrence of that loss or release, notify the Director-General as aforesaid.

12 Storage and marking of materials, containers, and places

- (1) Every licensee shall—
 - (a) take all reasonable steps to ensure the safe keeping of any radioactive material for which he is responsible;
 - (b) take all reasonable steps to ensure that any such radioactive material is labelled in accordance with clause 3 of Schedule 2, and that the provisions of subclause (2) of this regulation are complied with;
 - (c) store or procure the storage, in a container of fire resistant material, of any such radioactive material that is not in use and that exceeds in quantity 100 000 times the maximum activity specified in regulation 4(1)(a).
- (2) Every person who stores any radioactive material in any place shall, whether or not that place is within a controlled area, erect a warning sign or warning signs in accordance with clause 4 of Schedule 2.
- (3) Subclause (2) shall not apply if—
 - (a) the radioactive material is packed and labelled in accordance with the IAEA Transport Regulations or, in the case of containers temporarily holding the radioactive material, if the containers are labelled as required by clause 3 of Schedule 2; and
 - (b) the radioactive material is adequately protected against unauthorised removal.

13 Sealed radioactive materials

- (1) Every sealed radioactive material encapsulation shall bear identifying marks and, where practicable, information regarding the nature and activity of the radioactive material that it contains and the date of manufacture.
- (2) A licensee who is responsible for any sealed radioactive material shall carry out or cause to be carried out tests for leakage of the radioactive contents by methods approved, and at intervals specified, by the Director-General, and also at any time, by those methods, if the licensee has reason to believe that the container of that radioactive material has been damaged or may be leaking:
provided that the licensee need not make such tests if—
 - (a) he believes that to do so would add to the danger presented by any leakage; and
 - (b) he complies with the requirements of subclause (3).
- (3) If a licensee who is responsible for any sealed radioactive material has reason to believe that the container of that radioactive material has been damaged or may be leaking, he shall, after completing any tests undertaken pursuant to subclause (2), forthwith enclose it in an airtight container capable of retaining the radioactive material concerned, and shall take all practicable steps to remove any radioactive contamination of any place where the radioactive material has been stored or used.

14 Disposal of waste products

- (1) Every licensee who uses a radioactive material shall dispose of any waste product resulting from such use in accordance with the conditions specified in the licence in that behalf or, if no such conditions are so specified, as the Director-General may require.
- (2) Every person disposing of the waste product of any radioactive material which is exempted from sections 12 and 13(1) of the Act by regulation 4(1) and to which subclause (2)(a) of that regulation applies, shall do so—
 - (a) by burial at least half a metre deep, in accordance with subclause (3), in a supervised public refuse tip, or in a place where the earth is unlikely to be disturbed for a period exceeding 3 times the half-life of the radionuclide that has the longest half-life of those present in the waste product; or
 - (b) if the waste product is a gas, by breaking or otherwise opening the container to release the gas in the open air at a distance of at least 3 metres from any other person or any building; or
 - (c) if the waste product has previously been diluted with water to a concentration not exceeding that specified in regulation 4(1)(b), through the public sewerage system in a form soluble in water; or

- (d) if the waste product has previously been diluted by intimate mixture with inert material to a concentration not exceeding that specified in the said regulation 4(1)(b), by any common method of rubbish disposal.
- (3) Any burial pursuant to subclause (1) or subclause (2)(a) shall be directly supervised by the owner of the waste product or the agent of that owner.
- (4) If the half-life of any radionuclide contained in any waste product to be disposed of by burial is greater than 1 year, any container enclosing the waste product shall be of a type that will not retain its integrity in the earth for any substantial period of time.
- (5) For the purposes of this regulation, **waste product** includes any radioactive material that is no longer intended to be kept or used.

15 Disposal of containers

- (1) No person shall—
 - (a) dispose of any package or container that has contained a radioactive material otherwise than in accordance with regulation 14; or
 - (b) use that package or container for any purpose other than for containing a radioactive material,—

unless the activity of radioactive material remaining in that package or container does not exceed 0.1 of the activity specified in regulation 4(1)(a) and unless all warning and other labels indicating that the package or container contains a radioactive material have been effectively obliterated.

- (2) Nothing in subclause (1) shall affect or derogate from any provision of the Food and Drug Act 1969 or of any regulation made thereunder.

16 Registers, records, and returns

- (1) Every person who has any radioactive material under his control shall keep a record sufficient to ensure that at all times an efficient check is maintained on the quantity, nature, and location of the radioactive material.
- (2) In addition to the obligation imposed by subclause (1), every purchaser of radioactive materials shall keep full and accurate records specifying the purposes to which those materials are put, which records shall at all times be open to inspection by any person authorised by the Director-General in that behalf.
- (3) Every person who keeps a record under subclause (2) shall retain that record in his possession for a minimum period of 10 years unless the Director-General approves its earlier disposal.

17 Access to information

- (1) The Director-General may, if he thinks fit, request any information concerning any radioactive material or any irradiating apparatus from the owner of the material or apparatus.

- (2) Without limiting subclause (1), the information sought by the Director-General may include details of the type and quantity of the radioactive material held by the owner.
- (3) Every person who is requested to supply information under this regulation shall supply such information to the Director-General within 28 days of the date of the request or within such further time as the Director-General may allow.

Part 4

Particular provisions for protection

18 Exposure to radiation

- (1) No person shall intentionally expose any other person to radiation from any radioactive material or an irradiating apparatus except for medical reasons or other purposes authorised by the terms of a licence.
- (2) Subject to subclause (3), every person who is for the time being in control of any radioactive material or an irradiating apparatus shall take all reasonable steps to ensure that—
 - (a) except in the case of exposure to radiation for therapeutic purposes, the dose equivalent received by any person from radiation emanating from the irradiating apparatus or radioactive material is the minimum practicable; and
 - (b) except in the case of exposure to radiation for therapeutic purposes or for medical diagnostic purposes or as permitted by the terms of a licence, the dose equivalent referred to in paragraph (a) does not exceed—
 - (i) the reference dose equivalent, in the case of persons employed to work with such radioactive material or irradiating apparatus, except that in the case of women of reproductive capacity the dose equivalent shall not exceed one-quarter of the reference dose equivalent in any period of 3 months nor during the period of pregnancy following its diagnosis; or
 - (ii) 0.1 of the reference dose equivalent, in the case of other persons.
- (3) If the circumstances are such that sufficient protection cannot reasonably be provided so as to fulfil the requirements of subclause (2)(b), the recommendations of the International Commission on Radiological Protection (ICRP Publication 26), shall be followed.

19 Action to be taken in event of over exposure

- (1) Every person who has reason to believe that any person has been exposed to radiation exceeding that permitted under subclause (2), or (where applicable) subclause (3), of regulation 18 shall forthwith report the circumstances to the person who is licensed to use the radioactive material or the irradiating appar-

atus that gave rise to the exposure, or (if unable to do so) to the Director-General.

- (2) When a licensee has reason to believe that any person has, in any period of 1 year, received from a radioactive material, or from an irradiating apparatus, for which the licensee is responsible irradiation giving a dose equivalent exceeding the reference dose equivalent, he shall forthwith inform that person and the Director-General, and shall supply the Director-General with all pertinent information.
- (3) When such licensee has reason to believe that the dose equivalent referred to in subclause (2) exceeds 10 times the reference dose equivalent, he shall, as soon as he is aware that such exposure can be presumed to have occurred, make available to that person a medical examination performed by an approved medical practitioner, such examination to be primarily for the detection of any effects that might result from such exposure.
- (4) Further medical examination shall be made available to that person at such subsequent times as the approved medical practitioner may advise or the Director-General may require.
- (5) Where the licensee interprets the relevant radiation dose information in accordance with the recommendations of the International Commission on Radiological Protection (ICRP Publication 26) the dose equivalent limits as there defined shall be substituted for the reference dose equivalent.
- (6) On receipt of the information required under subclause (1) or subclause (2), the Director-General may direct that a medical examination be made available to the person so exposed and the licensee shall forthwith comply with that direction.
- (7) Any medical practitioner making an examination pursuant to subclause (3) or subclause (5) shall report the result thereof in writing to the licensee who made the examination available and the person examined, and shall forthwith send a copy of his report to the Director-General.
- (8) The Director-General may appoint a competent person to investigate the circumstances under which any over exposure to radiation is thought to have occurred and to make recommendations as to the prevention of any recurrence.
- (9) Nothing in this regulation shall apply in any case where the dose of radiation—
 - (a) is received as a necessary part of medical treatment or diagnosis; and
 - (b) is permitted by the terms of a licence—and is administered by the person licensed to use the radioactive material or the irradiating apparatus from which the dose is derived, or by a person acting under the instructions of that licensee, in accordance with the terms of the licence.

20 Measurement of radiation doses

- (1) Every licensee shall ensure that if he, or any other person acting under the instruction or supervision of the licensee, uses a radioactive material or an irradiating apparatus under conditions in which either he or any such other person could receive in any period of 1 year, by absorption of radiation from sources outside the body, a dose equivalent exceeding 0.3 of the reference dose equivalent, any radiation dose received by either of them while engaged in the use of that radioactive material or that irradiating apparatus shall be continuously measured by means of a dosimeter of a type approved by the Director-General.
- (2) Without limiting subclause (1), every licensee shall, if so required by the Director-General, cause radiation doses received by himself, or by specified persons working under his instructions or supervision with or in the neighbourhood of any source of radiation, or by persons performing specified work under his instructions or supervision, to be measured at such intervals as may be specified, by means of a dosimeter of a type approved by the Director-General.
- (3) Every licensee shall, if so required by the Director-General, ensure that a radiation measuring instrument of a type approved by the Director-General is provided, and used to measure radiation dose rates as often as may be necessary to allow work to be planned so as to satisfy the requirements of subclauses (2) and (3) of regulation 18.
- (4) Every licensee using unsealed radioactive material, or under whose instructions or supervision any other person uses such material, under conditions in which he or that other person could receive, by inhalation or ingestion of radioactive substances contained in such material, an intake during any period of 1 year that would lead to a dose equivalent commitment exceeding 0.3 of the reference dose equivalent shall ensure that an instrument of a type approved by the Director-General is provided and used to make appropriate measurements of levels of radioactive contamination as often as may be necessary to allow work to be planned and carried out so as to satisfy the requirements of subclauses (2) and (3) of regulation 18.
- (5) Without limiting subclause (4), every licensee shall, if so required by the Director-General, ensure that an instrument is provided and used as described in the said subclause (4).
- (6) Subclause (4) shall not apply when the radioactive contamination that would be required to be measured is of a type for the measurement of which no instrument is reasonably obtainable.
- (7) Every person who enters a controlled area shall, before he leaves that area, use the instrument (if any) made available pursuant to subclause (4) or subclause (5) of this regulation for the purpose of detecting any contamination by a radioactive substance on his hands or other part of his body or his clothing, and shall reduce such contamination to an amount estimated by the licensee to satisfy the requirements of regulation 18.

21 Controlled areas

- (1) If a licensee is of the opinion that, by reason of the presence in any place of a radioactive material, or an irradiating apparatus, for which he is responsible, a hazard to any person arises from—
 - (a) radiation received from a source outside the body of that person; or
 - (b) the possibility of that person ingesting, inhaling, or otherwise absorbing into his body any radioactive substance,—and that it is necessary, for the purposes of regulation 18, that the area in which the hazard exists (being an area in the occupation or otherwise under the control of the licensee or his employer) should become a controlled area, he shall designate that area as a controlled area.
- (2) Where any area is designated as a controlled area, the licensee, and any other person who uses any radioactive material or any irradiating apparatus in that area knowing that the area is so designated, shall—
 - (a) ensure that the area is indicated by warning signs in accordance with clause 5 of Schedule 2; and
 - (b) take all reasonable steps to prevent access to the area by any unauthorised person.
- (3) Except as provided in section 24 of the Act, no person shall, without the permission of the licensee or a Radiation Safety Officer, enter a controlled area.
- (4) Every licensee or Radiation Safety Officer who permits a person to enter a controlled area shall ensure that that person is fully instructed in respect of the precautions that he must observe while he is within that area, and is provided with sufficient protective equipment for the purposes of regulation 18.
- (5) Subject to subclause (6), when the circumstances that required an area to be designated as a controlled area cease to exist, the licensee shall arrange for the carrying out of such decontamination as may be necessary, and shall cause any warning sign erected in compliance with subclause (2)(a) to be removed.
- (6) Subclause (5) shall not apply where it is expected by the licensee that the circumstances that required the area to be designated as a controlled area will soon recur.
- (7) A controlled area shall continue to be a controlled area until all warning signs have been removed therefrom pursuant to subclause (5).
- (8) Every licensee manufacturing or using in a controlled area any radioactive material that is not a sealed radioactive material shall take all reasonable steps to ensure that—
 - (a) sufficient protective clothing is provided for, and (when necessary for the purposes of regulation 18) worn by all persons working in the controlled area, and that the clothing is removed when such persons leave that area; and

- (b) levels of contamination by radioactive substances are maintained as low as is reasonably possible, and in any case low enough to avoid any contravention of regulation 18.

Part 5

Radiotherapy and diagnosis

22 Radiotherapy records

- (1) Every person who is licensed to use radioactive materials or an irradiating apparatus for therapeutic purposes shall keep a record of the application of such radioactive material, or of radiation from such irradiating apparatus, sufficient to show what parts of the body were irradiated, the quality of the radiation and magnitude of the radiation dose, and relevant data on which the estimate of radiation dose was based.
- (2) The licensee shall retain every record kept by him under subclause (1) for at least 10 years.

23 Restrictions on use of irradiating apparatus in radiotherapy

- (1) No person shall use an irradiating apparatus to administer any beam of radiation for therapeutic purposes to a human being unless the radiation output and the quality of the radiation produced by the particular arrangement and adjustment of the apparatus have been determined by a method approved by the Director-General.
- (2) For the purpose of subclause (1), the expression **the particular arrangement and adjustment of the apparatus** means—
 - (a) where the source is a radioactive material, any combination of source, filter, and source-surface distance; or
 - (b) where the source is an X-ray tube, any combination of tube, tube voltage, tube current, filter, and source-surface distance; or
 - (c) where the source is any other form of irradiating apparatus, the corresponding parameters.
- (3) The determination of radiation output and the quality of the radiation required under subclause (1) shall be repeated at such intervals as the Director-General may require.
- (4) No person shall use a radiation measuring instrument for the purposes of this regulation unless—
 - (a) it is of a type approved by the Director-General; and
 - (b) it has been checked for accuracy by a person approved by the Director-General for that purpose; and
 - (c) since that check, regular checks have been made that demonstrate that it has retained its accuracy.

- (5) No person shall use any timer in connection with radiation beam therapy unless it complies with subclause (4), and is found to be accurate to within 1% for times greater than 100 seconds, and to within 1 second for shorter times.
- (6) No person shall use an irradiating apparatus to administer any beam of radiation for therapeutic purposes to another person unless the delivered radiation dose is within 5% of the prescribed radiation dose.

24 Special precautions to be taken with irradiating apparatus used in radiotherapy

- (1) Every person using an irradiating apparatus to administer any beam of radiation for therapeutic purposes to another person shall keep that other person and that apparatus under constant supervision.
- (2) No person shall use an irradiating apparatus for any such treatment unless—
 - (a) the exposure is controlled by an automatic device that ends the exposure after a predetermined time or predetermined radiation dose and that has been regularly checked by the person licensed to use the apparatus; and
 - (b) a warning device of a type approved by the Director-General is provided on the control panel of the apparatus plainly indicating whether or not a beam of radiation is emerging from the apparatus.
- (3) Where an irradiating apparatus generates X-rays using a tube voltage exceeding 150 kV, or is an accelerator of subatomic particles, or is a teletherapy apparatus, a warning device as required by subclause (2)(b) shall be placed at the entrance to the room in which it is used and an interlock system shall be installed so that when any door into the room is open the beam control mechanism automatically shuts off the beam.
- (4) The interlock system shall operate in such a way that it shall not be possible to obtain a beam from the apparatus after it has been automatically shut off except by means of a control at the control panel.

25 Special precautions to be taken with irradiating apparatus used in diagnosis

No person shall use an irradiating apparatus for any diagnostic purpose unless it is fitted with such means of restricting the direction and size of the radiation beam as will ensure that the minimum practicable area of the person examined is irradiated, and is fitted with a filter such as will reduce the radiation dose to that area to the minimum consistent with obtaining the diagnostic information required.

Part 6

Miscellaneous provisions

26 Forms

Forms for applications, licences, registers, notices, and other documents required for the purposes of the Act, or of these regulations, may from time to time be prescribed by the Director-General.

27 Fees

- (1) For the purposes of this regulation,—
 - (a) a licence is a simple licence if, and only if, it is a licence of one of the following kinds:
 - (i) a licence for therapeutic purposes, issued subject to a restriction to use for superficial therapy only;
 - (ii) a licence for chiropractic diagnostic purposes, dental diagnostic purposes, podiatric diagnostic purposes, or veterinary diagnostic purposes;
 - (iii) a licence for the purposes of pathology tests;
 - (b) a licence is a complex licence if, and only if, it is not a simple licence, and is a licence of one of the following kinds:
 - (i) a licence for diagnostic purposes;
 - (ii) a licence for therapeutic purposes;
 - (iii) a licence for the purposes of research on human beings;
 - (iv) a licence for the purposes of medical physics;
 - (v) a licence for the purposes of research involving the use of a particle accelerator.
- (2) Every application for the issue or renewal of a licence under the Act must be accompanied by—
 - (a) a fee of—
 - (i) \$190, in the case of a simple licence;
 - (ii) \$225, in the case of a licence that is neither a simple licence nor a complex licence;
 - (iii) \$300, in the case of a complex licence; and
 - (b) if, in the Director-General's opinion, it is likely that the application will be referred to the Radiation Protection Advisory Council under section 16(3) of the Act, a further fee of \$180.
- (3) The Director-General must refund the further fee if the licence or renewal is granted or refused without the application's having been referred to the Radiation Protection Advisory Council.

- (4) An application for the issue or renewal of a licence must not be dealt with until the applicant has paid the prescribed fee or fees.
- (5) No fee is payable in respect of—
 - (a) an application for the issue of a licence to use a radioactive material for any purpose, made by the holder of a licence to use any radioactive material for any purpose; or
 - (b) an application for the issue of a licence to use an irradiating apparatus for any purpose, made by the holder of a licence to use any irradiating apparatus for any purpose.
- (6) The fees prescribed by this regulation are inclusive of goods and services tax.
Regulation 27: substituted, on 1 January 1999, by regulation 2 of the Radiation Protection Amendment Regulations 1998 (SR 1998/354).

28 Revocations

The Radiation Protection Regulations 1973 (SR 1973/48), the Radiation Protection Regulations 1973, Amendment No 1 (SR 1974/318), and the Transport of Radioactive Materials Regulations 1973 (SR 1973/51) are hereby revoked.

Schedule 1

Activities and concentrations of radioactive materials

rr 2, 4

1 Interpretation

- (1) One becquerel is an activity of 1 transformation per second.
- (2) For the purposes of these regulations, when the transformation of the atoms of a radionuclide gives rise to another radionuclide, the activity is measured by the rate of transformation of the first or “parent” radionuclide only.
- (3) The classification of any radionuclide may, if it is not shown in clause 2 or clause 3, be obtained on application to the Director of the National Radiation Laboratory.

2 Groups of radionuclides in relation to activities

The groups of radionuclides referred to in paragraph (a) of regulation 4(1), and the corresponding activities are those set out in the following table:

Activity referred to in regulation 4(1)(a)	Radionuclides (listed by symbols)
3 kilobecquerels	Ra-226, Ra-228, Ac-227, Th-228, Th-230, Th-232, Pa-231, U-232, Np-237, Pu-238, Pu-239, Pu-240, Pu-242, Pu-244, Am-241, Am-242m, Am-243, Cm-242, Cm-244, Cf-252
10 kilobecquerels	Nd-144, Sm-147, Pb-210, U-233, U-234, U-235, U-236, U-238, Pu-241
30 kilobecquerels	P-32, Ti-44, Rb-86, Sr-89, Sr-90, Y-91, Ru-106, Cd-115m, In-114m, Sn-125, Te-129m, Ce-144, Po-208, Po-210, Ra-223, Th-227, Th-234, U-230
100 kilobecquerels	K-40, As-76, Y-90, Sb-122, Sb-124, Te-132, I-129, I-131, Ba-140, Dy-166, Rn-222, Ra-224
300 kilobecquerels	Na-22, Na-24, K-42, Ca-47, Sc-46, V-48, Mn-52, Fe-59, Co-60, Ga-67, As-74, Y-88, Zr-95, Mo-99, Ag-110m, Cd-115, Te-131m, Cs-134, Cs-136, Cs-137, Ba-133, La-140, Ce-143, Eu-152B,

Activity referred to in regulation 4(1)(a)	Radionuclides (listed by symbols)
1 megabecquerel	Eu-154, Tb-160, Ho-166, Tm-170, Ta-182, Re-188, Os-185, Ir-192, Au-195, Bi-206, Bi-207, Bi-210, Pa-230 Cl-36, Sc-48, Mn-54, Co-56, Co-58, Zn-65, Ga-72, As-73, Se-75, Br-82, Kr-85, Sr-85, Y-87, Nb-95, Tc-96, Ru-103, Ag-105, Ag-111, Sn-113, In-115, Sb-125, Te-127m, I-126, La-138, La-140, Ce-141, Pr-143, Nd-147, Pm-149, Yb-164, Lu-176, Hf-181, W-181, Re-183, Re-186, Os-193, Ir-190, Pt-193m, Pt-193, Au-196, Au-198, Tl-202, Tl-204, Th-231
3 megabecquerels	Ca-45, Sc-47, Cr-51, Mn-56, Co-57, Ge-71, As-77, Rb-87, Zr-93, Tc-97, Tc-97m, Tc-99, Ru-97, Pd-103, Cd-109, In-111, Sn-119m, Te-125m, I-125, Xe-133, Cs-131, Ba-131, Pm-147, Sm-151, Sm-153, Eu-155, Yb-169, Yb-175, Lu-177, W-185, Os-191, Pt-191, Au-199, Hg-197m, Hg-197, Hg-203, Tl-200, Tl-201, Pb-203, Pa-233, Np-239
10 megabecquerels	Be-7, C-14, Fe-55, Ni-63, I-132, Xe-131m, Cs-135, Gd-153, Er-169, Tm-171, Rh-105
30 megabecquerels	F-18, P-33, S-35, Ni-59, Nb-93, I-123, Re-187
100 megabecquerels	Cu-64, Sr-87m, Tc-99m
300 megabecquerels	In-113m
1 gigabecquerel	H-3
300 gigabecquerels	Ar-37

3 Groups of radionuclides in relation to concentration

The groups of radionuclides referred to in paragraph (b) of regulation 4(1) and the corresponding concentrations, are those set out in the following table:

**Concentration referred to in
regulation 4(1)(b)**

100 kilobecquerels per kilogram

Radionuclides (listed by symbols)

Na-22, Sc-46, Ti-44, V-48, Mn-52,
Mn-54, Fe-59, Co-56, Co-58, Co-60,
Zn-65, Y-88, Zr-95, Ag-110m, In-111,
In-113m, Sb-124, Cs-134, Cs-136, Cs-
137, Ba-133, Ba-140, La-138, La-140,
Sm-147, Eu-152, Eu-154, Tb-160,
Yb-169, Lu-176, Ta-182, Os-185, Ir-
192, Pb-210, Bi-206, Bi-207, Po-208,
Ra-226, Ra-228, Ac-227, Th-228, Th-
230, Th-232, Pa-231, U-232, U-233,
U-234, U-235, U-236, U-238, Np-
237, Pu-238, Pu-239, Pu-240, Pu-241,
Pu-242, Pu-244, Am-241, Am-242m,
Am-243

300 kilobecquerels per kilogram

Na-24, K-40, Ca-47, Sc-48, Co-57,
Ga-67, Ga-72, As-74, Se-75, Br-82,
Sr-85, Sr-90, Y-87, Nb-95, Tc-96,
Ru-106, Ag-105, Sn-113, Te-131m,
Te-132, I-126, I-129, Ba-131, Ce-144,
Hf-181, Re-183, Ir-190, Pt-193, Au-
195, Hg-203, Tl-202, Po-210, Rn-222,
Ra-223, Ra-224, Th-227, U-230

1 megabecquerel per kilogram

Mn-56, Rb-86, Y-91, In-114m, Sn-
119m, Sb-122, Sb-125, Te-129m, I-
131, I-132, Eu-155, Gd-153, Yb-164,
W-181, Au-196, Au-198, Tl-200, Tl-
204, Pb-203, Th-234, Pa-230

3 megabecquerels per kilogram

Be-7, F-18, P-32, Cl-36, K-42, Sc-47,
Cr-51, Cu-64, As-76, Kr-85, Sr-89,
Y-90, Mo-99, Ru-97, Ru-103, Cd-
109, Cd-115, Cd-115m, Sn-125, Te-
125m, Te-127m, I-125, Cs-131, Ce-
141, Ce-143, Nd-147, Dy-166, Tm-
170, Os-191, Pt-191, Au-199, Tl-201,
Bi-210, Np-239

10 megabecquerels per kilogram

Ca-45, As-73, Tc-97, Tc-99, Tc-99m,
Rh-105, Ag-111, I-123, Xe-131m, Xe-
133, Pr-143, Pm-149, Sm-153, Ho-
166, Yb-175, W-185, Re-186, Re-188,
Os-193, Hg-197, Hg-197m, Pa-233

30 megabecquerels per kilogram

C-14, P-33, Ni-63, As-77, Zr-93, Nb-
93m, Tc-97m, Pd-103, Cs-135, Pm-
147, Sm-151, Er-169, Tm-171, Lu-177

**Concentration referred to in
regulation 4(1)(b)**

100 megabecquerels per kilogram

300 megabecquerels per kilogram

3 gigabecquerels per kilogram

Radionuclides (listed by symbols)

S-35, Fe-55, Ni-59, Sr-87m, Pt-193m,
Th-231

Ar-37, Ge-71

H-3

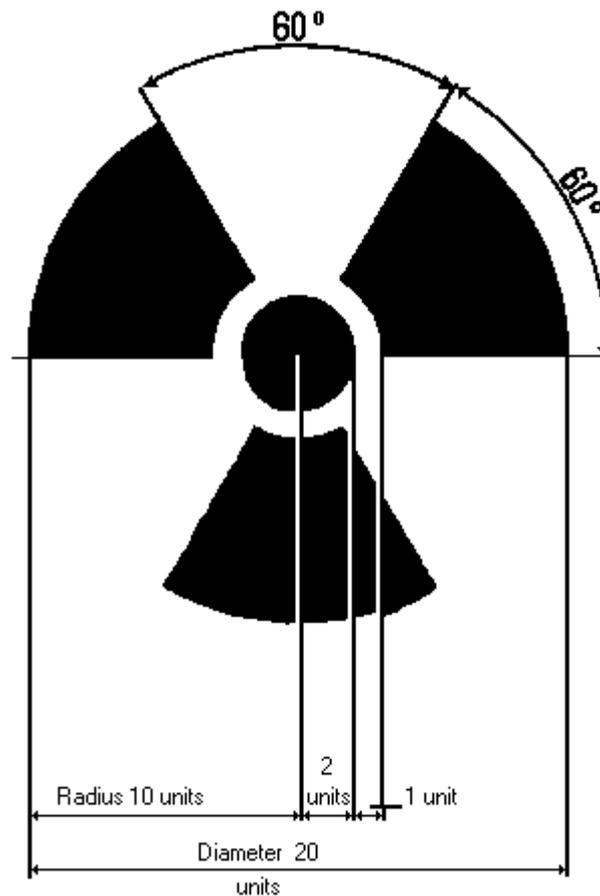
Schedule 2

Labels and warning signs

rr 4, 12, 21

1 Radiation warning symbol

- (1) In this schedule **radiation warning symbol** means the symbol set out below, subject to such variations as to colour and size as are hereinafter permitted.



This is the internationally accepted symbol used to indicate the presence of ionising radiation and radioactive material. The areas shown here as black are also sometimes coloured magenta or purple, and any of the three colourings are acceptable under these regulations except for the labels described in clause 2, for which black must be used. The symbol may be made any size by varying the size of the units of length indicated in the diagram, one unit being one-twentieth of the required diameter.

- (2) Subject to the particular requirements of clauses 2, 3, and 4, a radiation warning symbol may be of any size, each unit of length shown in the symbol set out in subclause (1) being one-twentieth of the required diameter.

2 Labelling of radioactive materials to which regulation 4 applies

- (1) The label required by regulation 4(2)(a)(i) shall bear the radiation warning symbol in black on a white background and, subject to subclause (2) of this clause, it shall have an outer diameter of at least 20 mm. It shall also bear:
- (a) the words “RADIOACTIVE MATERIAL” in letters not less than 3 mm high; and
 - (b) the words “Exempt from Radiation Protection legislation except for labelling and manner of disposal when discarded” in letters large enough to be easily legible; and
 - (c) a statement of the nature and activity of the radioactive material and the date on which the activity was that so specified.
- (2) Where the outer container is not large enough to bear a label as required by subclause (1), the size of the label may be reduced, but the outer container shall be large enough to bear a label of dimensions one-half of those required by subclause (1).

3 Labelling of containers generally

- (1) Every container, in which radioactive material (other than radioactive material to which regulation 4 applies) is stored or used, shall bear a clearly visible label on each of two opposite sides consisting of the radiation warning symbol, with an outside diameter of not less than 40 mm, together with the words, in lettering at least 5 mm high, “CAUTION—RADIOACTIVE MATERIAL”. Each such container shall also bear a clearly legible label stating the kind of radioactive material in the container, and its activity at a stated time. The colouring of the radiation warning symbol shall be black, magenta, or purple, on a yellow background. If any container of radioactive material is not large enough to bear such a label, it shall be stored in an outer container which bears such a label.
- (2) Nothing in subclause (1) shall apply to containers temporarily holding radioactive materials during laboratory procedures if the area is marked as required by clause 4 or clause 5, as the case may require.

4 Warning signs generally

The warning sign required by subclause (2) of regulation 12 shall be erected at each entrance or door or other point of access to the place in which the radioactive material is stored or used so that it is clearly visible to any person before he can gain access to the radioactive material. The sign shall bear the radiation warning symbol with an overall diameter of not less than 100 mm. Its colour shall be black, magenta, or purple, on a yellow background. The sign shall also

bear the words “CAUTION—RADIOACTIVE MATERIAL” in letters at least 5 mm high.

5 Warning signs in controlled areas

At any entrance to, or door of, or other point of access to, a controlled area a sign must be erected in such a manner that it is clearly visible to any person entering or attempting to enter that controlled area. The sign must bear the radiation warning symbol with an overall diameter not less than 100 mm and must be black, magenta, or purple, on a yellow background. The sign must bear in letters not less than 5 mm high the wording “CAUTION—CONTROLLED AREA” and the words “ENTRY PROHIBITED EXCEPT WITH THE AUTHORITY OF (*Name or Names of Licensee/Radiation Safety Officer*)”.

6 Saving of obligations of licensee, etc

Nothing in the preceding provisions of this schedule shall operate to relieve a licensee, owner, or other person using or possessing a radioactive material or an irradiating apparatus from any obligation imposed on him by these regulations or otherwise by law to give such warnings and advice to any person as will assist that person to avoid or limit his exposure to radiation.

Schedule 3 Exempted articles

r 4(3)

Part 1

Description of article	Conditions of exemption
1 Clocks, watches, and other instruments containing luminous material activated by radium-226, promethium-147, nickel-63, carbon-14, or hydrogen-3, of activity not exceeding twice the activity shown in the first column of the table in clause 2 of Schedule 1 for the group in which the radionuclide appears in the second column of that table.	1 The radioactive material shall be effectively covered to prevent accidental ingestion or inhalation.
2 Clocks, watches, and other instruments not intended to be used for domestic purposes or to be worn or carried on any part of the body, otherwise than for special purposes likely to involve such wearing or carriage for no more than 1 000 hours in any year, and containing luminous material activated by radium-226, promethium-147, nickel-63, carbon-14, or hydrogen-3, of activity not exceeding 15 times the activity shown in the first column of the table in clause 2 of Schedule 1 for the group in which the radionuclide appears in the second column of that table.	2(a) The radioactive material shall be effectively covered to prevent accidental ingestion or inhalation. (b) The instrument shall be prominently and durably marked, on the dial or externally, with the symbol for the radionuclide, or for the element of which that radionuclide is an isotope, and with an indication of the activity present.
3 Smoke detecting fire alarms and other atmospheric contaminant detectors containing any alpha-emitting radionuclide of activity not more than 100 times the activity shown in the first column of the table in clause 2 of Schedule 1 for the group in which the radionuclide appears in the second column of that table.	3(a) The radioactive material shall be in a form which effectively prevents its dispersal, and shall be mounted in such a manner that it is not readily accessible without dismantling the apparatus. (b) The device shall bear a durable label containing the radiation warning symbol set out in clause 1 of Schedule 2, in black on a white

Description of article**Conditions of exemption**

- background and with an overall diameter of not less than 20 mm, together with the words, in letters not less than 3 mm high, “CONTAINS RADIOACTIVE MATERIAL—DO NOT DISMANTLE”, or other adequate warning which has been approved by the Director-General.
- (c) The device is accompanied by written instructions, which have been approved by the Director-General, in regard to the care, safe use, and ultimate means of disposal, of the radioactive material.

Part 2**Description of article****Conditions of exemption**

- | | | | |
|---|---|---|---|
| 1 | Ionisation and electron capture detectors for use in gas chromatography and similar equipment, containing not more than 500 megabecquerels of Nickel-63 or 10 gigabecquerels of Hydrogen-3 (Tritium). | 1 | That part of the detector containing the radioactive material shall bear a label as described in clause 2 of Schedule 2. |
| 2 | Luminous devices activated by Hydrogen-3 (Tritium) in the form of elementary hydrogen gas with not more than 1 gigabecquerel in any other chemical form and of total activity not exceeding 100 gigabecquerels. | 2 | The device is accompanied by written instructions, which have been approved by the Director-General, in regard to the care, safe use, and ultimate means of disposal, of the radioactive material. |
| 3 | Uranium metal of natural isotopic composition, or depleted in Uranium-235, which is used as radiation shielding, either in transport packages for radioactive materials or in any other manner. | 3 | The uranium metal shall be completely clad in a sheath of metal which is not radioactive and which will effectively protect the uranium metal from mechanical or chemical damage in its intended use. |

P G Millen,
Clerk of the Executive Council.

Reprints notes

1 *General*

This is a reprint of the Radiation Protection Regulations 1982 that incorporates all the amendments to those regulations as at the date of the last amendment to them.

2 *Legal status*

Reprints are presumed to correctly state, as at the date of the reprint, the law enacted by the principal enactment and by any amendments to that enactment. Section 18 of the Legislation Act 2012 provides that this reprint, published in electronic form, has the status of an official version under section 17 of that Act. A printed version of the reprint produced directly from this official electronic version also has official status.

3 *Editorial and format changes*

Editorial and format changes to reprints are made using the powers under sections 24 to 26 of the Legislation Act 2012. See also <http://www.pco.parliament.govt.nz/editorial-conventions/>.

4 *Amendments incorporated in this reprint*

Radiation Safety Act 2016 (2016 No 6): section 97(c)

Radiation Protection Amendment Regulations 1998 (SR 1998/354)