

South Australia

Radiation Protection and Control Regulations 2022

under the *Radiation Protection and Control Act 2021*

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Part 1—Preliminary

1—Short title

These regulations may be cited as the *Radiation Protection and Control Regulations 2022*.

2—Commencement

These regulations come into operation on the day on which the *Radiation Protection and Control Act 2021* comes into operation.

Part 2—Interpretation

3—Interpretation

- (1) In these regulations—

absorbed dose of ionising radiation means a fundamental dose quantity representing the mean energy imparted to matter by ionising radiation in a volume element and per unit mass of matter in that volume element;

accredited exercise physiologist means a person who holds an accreditation as an exercise physiologist with Exercise and Sports Science Australia;

Act means the *Radiation Protection and Control Act 2021*;

activity of a radionuclide means the quantity of that radionuclide in a given energy state at a given time, defined as the number of spontaneous nuclear transformations from the given energy state per second;

annual effective dose—see regulation 4;

aperture means a gap in the protective material of a tube housing through which ionising radiation from an X-ray tube within the tube housing may pass with little or no attenuation;

approved means approved by the Minister;

ARPANSA means the Australian Radiation Protection and Nuclear Safety Agency of the Commonwealth;

Authority means the Environment Protection Authority established under the *Environment Protection Act 1993*;

bore hole logging means the use of an ionising radiation apparatus or a sealed radioactive source to investigate the physical properties of a geological sequence, fluids contained in a geology sequence or the properties of a bore hole, by lowering the apparatus or source and a detector down a bore hole that has been drilled through the strata being investigated;

bore hole logging tool means a device containing an ionising radiation apparatus or sealed radioactive source that is designed and constructed to be lowered and raised during bore hole logging;

Code of Practice for the Security of Radioactive Sources means the *Code of Practice for the Security of Radioactive Sources (2019)* published by ARPANSA as in force from time to time;

cumulative means the sum of all the results obtained for a parameter since the beginning of the relevant year;

dental hygienist means a person registered under the *Health Practitioner Regulation National Law (South Australia)*—

- (a) to practise in the dental profession (other than as a student); and
- (b) in the dental hygienists division of that profession;

dental therapist means a person registered under the *Health Practitioner Regulation National Law (South Australia)*—

- (a) to practise in the dental profession (other than as a student); and
- (b) in the dental therapists division of that profession;

disposal, in relation to a radioactive substance, does not include sale;

dose of ionising radiation means absorbed dose, effective dose or equivalent dose;

dose constraint, in relation to an individual dose of ionising radiation from a radiation source, means a prospective and source-related restriction on the individual dose which provides a basic level of protection for the most highly exposed individuals from that source, and serves as an upper bound on the dose in optimisation of protection for that source;

effective dose means the sum of equivalent doses of ionising radiation for all tissues and organs of the body determined by adding together each equivalent dose for a tissue or organ after it has been multiplied by the tissue weighting factor appropriate to that type of tissue or organ;

emergency exposure situation means a situation of exposure to ionising radiation that arises as a result of an accident or other undesirable event and that requires prompt protective action in order to avoid or reduce adverse consequences;

employer means a person who carries on a business or activity in the course of which persons who are employed or engaged to work for the person (including as independent contractors) are exposed to ionising radiation;

equivalent dose means the absorbed dose delivered by a type of ionising radiation averaged over a tissue or organ multiplied by the radiation weighting factor for that ionising radiation type;

excepted package has the same meaning as in the Transport Code;

exempt activity, in relation to a radionuclide means—

- (a) in relation to a radionuclide contained within a naturally occurring radioactive material—means the activity specified in Table I.3 of the IAEA General Safety Requirements for the radionuclide; or
- (b) in any other case—means the activity specified in Table I.1 of the IAEA General Safety Requirements for the radionuclide;

existing exposure situation means a situation of exposure to ionising radiation that already exists when a decision on control needs to be taken, and includes a situation of prolonged exposure after an emergency;

external radiation, in relation to the exposure of a natural person to ionising radiation, means ionising radiation that is not internal radiation;

fail safe, in relation to a warning device or interlock, means that the failure of the device or interlock results in the inability to produce useable ionising radiation from the apparatus or sealed radioactive source to which the device or interlock is connected;

fixed apparatus means any ionising radiation apparatus that is neither a mobile apparatus nor a portable apparatus;

fully protected enclosure, in relation to industrial radiography, means an enclosure on or in respect of which—

- (a) all doors and other openings into the enclosure are interlocked with either the apparatus or the source control mechanism so that the apparatus is de-energised or the source is returned to the shielded ("off") position whenever a door or other opening is opened; and
- (b) a warning device inside the enclosure sounds continuously for at least 5 seconds when an exposure commences; and
- (c) a red warning light marked "Radiation On" that remains on throughout an exposure, is readily visible from all normal routes of access; and
- (d) the warning lights are fail safe; and
- (e) the equivalent dose rate at a distance of 50 mm from any readily accessible point on the surface of the enclosure never exceeds 25 $\mu\text{Sv/h}$; and
- (f) a door can be readily opened from inside the enclosure;

gaseous tritium light source means a sealed glass container filled with gaseous tritium and coated internally with a phosphor;

group, in relation to a radionuclide, means the group to which the radionuclide is assigned in Schedule 2;

IAEA General Safety Requirements means the *Radiation Protection and Safety of Radiation Sources : International Basic Safety Standards 2014: General Safety Requirements Part 3 (ISBN 978–92–0–135310–8)* published by the International Atomic Energy Agency, as in force from time to time;

industrial radiography means the use of X-rays, gamma rays or neutrons to obtain information non-destructively on the internal state of objects and materials;

internal radiation, in relation to the exposure of a person to ionising radiation, means ionising radiation from a radioactive substance located within the person's body;

ionisation chamber smoke detector means a device containing a radioactive substance that is designed and constructed to detect the presence of smoke or other combustion product aerosols;

member of the public means a person who is not a worker;

mobile apparatus means ionising radiation apparatus that is designed and constructed so as to be moveable from place to place for use as required but does not include a portable apparatus;

National Directory has the same meaning as in section 78 of the Act;

naturally occurring radioactive material means material containing radionuclides that are of natural origin only;

nurse practitioner means a nurse whose registration under the *Health Practitioner Regulation National Law (South Australia)* is endorsed as being qualified to practise as a nurse practitioner;

occupational exposure means exposure to ionising radiation directly arising out of, or in the course of, employment;

optimisation, in relation to the optimisation of radiation protection and safety, means the process of determining what level of protection and safety makes exposures to ionising radiation (and the probability and magnitude of potential exposures) as low as is reasonably achievable, having regard to economic and societal factors;

oral health therapist means a person registered under the *Health Practitioner Regulation National Law (South Australia)*—

- (a) to practise in the dental profession (other than as a student); and
- (b) in the oral health therapist division of that profession;

petroleum has the same meaning as in the *Petroleum and Geothermal Energy Act 2000*;

plain radiography means the technique for obtaining, recording and processing directly or after transfer, static information contained in an X-ray image at an image receptor where the X-ray tube is stationary throughout the exposure;

planned exposure situation, in relation to exposure to ionising radiation, means a situation involving the deliberate introduction and operation of radiation sources that may give rise to both exposures that are anticipated to occur (**normal exposures**) and to exposures that are not anticipated to occur (**potential exposures**);

plant includes—

- (a) any appliance, container, equipment, implement, machinery or tool; and
- (b) any component of a thing referred to in paragraph (a); and
- (c) anything that is fitted to or connected with any thing referred to in paragraph (a);

portable apparatus means any ionising radiation apparatus that is designed to be carried manually from place to place for use as required;

practice means any type of human activity in which persons may be exposed to ionising radiation;

primary beam means that part of the X-radiation that passes through an aperture of a tube housing by a direct path from an X-ray tube;

public exposure means an exposure to ionising radiation incurred by a member of the public from an ionising radiation source, but does not include an occupational exposure, a medical exposure or an exposure from normal local natural background radiation;

radiation gauge means a device containing a radiation source designed to measure a parameter associated with the item or material of interest, but does not include a device that does not need to be permanently fixed in place to be used;

radiation incident means any unintended occurrence involving a radiation source which results in, or has the potential to result in, an exposure to ionising radiation to any person or the environment that is outside the range of that normally expected for a particular practice, and includes an occurrence resulting from operator error, equipment failure or the failure of management systems that warranted investigation;

radiation management plan means a radiation management plan submitted under section 34 of the Act;

radiation symbol means the radiation symbol described and shown in Schedule 1;

registered premises means premises in which an unsealed radioactive material is handled or kept and which are registered under the Act in the name of the occupier of the premises;

registrable device means a device or instrument that contains a sealed radioactive source which is required to be registered under section 26 of the Act;

relevant code—see Schedule 4;

sell means—

- (a) sell; or
- (b) supply by way of barter, exchange or gift; or
- (c) let on hire; or
- (d) bail; or
- (e) authorise, direct, cause, suffer or permit any of the acts referred to in paragraphs (a) to (d);

source container means an enclosure for a sealed radioactive source that provides, by shielding and by distance, protection against radiation emitted by the source;

source holder, in relation to bore hole logging, means the component of a bore hole logging tool that—

- (a) houses the sealed radioactive source to protect it from damage; and
- (b) fits into the source container when the source is not being used; and
- (c) fits onto the bore hole logging tool when the source is being used;

source of ionising radiation means an ionising radiation apparatus or a radioactive material;

specialist dentist means a person registered under the *Health Practitioner Regulation National Law (South Australia)*—

- (a) to practice in the dental profession as a dentist (other than as a student); and
- (b) holding specialist registration as a dentist;

specialist dermatologist means a medical practitioner holding specialist registration as a dermatologist;

specialist in nuclear medicine means a medical practitioner holding registration as a specialist in nuclear medicine;

specialist medical oncologist means a medical practitioner holding specialist registration as a medical oncologist;

specialist medical practitioner means a medical practitioner holding specialist registration in a medical specialty;

specialist nuclear medicine physician means a medical practitioner holding specialist registration as a nuclear medicine physician;

specialist ophthalmologist means a medical practitioner holding specialist registration as an ophthalmologist;

specialist paediatric medical oncologist means a medical practitioner holding specialist registration as a paediatric medical oncologist;

specialist paediatric nuclear medicine physician means a medical practitioner holding specialist registration as a paediatric nuclear medicine physician;

specialist radiation oncologist means a medical practitioner holding specialist registration as a radiation oncologist;

specialist radiologist means a medical practitioner holding specialist registration as a radiologist;

Transport Code means the code entitled *Code for the Safe Transport of Radioactive Material*, Radiation Protection Series C-2 (Rev.1), published by the Chief Executive Officer of ARPANSA in 2019, as modified by Schedule 8;

tube housing, in relation to an ionising radiation apparatus, means a container in which an X-ray tube is mounted for normal use, providing protection against electric shock and against ionising radiation except for an aperture for the useful beam;

type, in relation to premises in which an unsealed radioactive material is kept or handled, means the type of premises established by the classification scheme set out in *Code for Premises Type 2015* published by the Authority, as in force from time to time;

veterinary surgeon means a person registered on the general register or on both the general register and the specialist register under the *Veterinary Practice Act 2003*;

worker means a person who is exposed to ionising radiation in the ordinary course of the person's work;

X-ray analysis apparatus means an ionising radiation apparatus that is used to analyse the properties or composition of materials by the techniques of X-ray fluorescence or X-ray diffraction;

X-ray tube, in relation to an ionising radiation apparatus, means an evacuated glass envelope in which electrons are accelerated for the purposes of the production of ionising radiation.

- (2) In these regulations, a reference to a worker being employed by an employer is to be taken to include the acceptance of a person as—

- (a) a voluntary worker; or
- (b) a student,

and the person who accepts a person as a voluntary worker or student will, for the purposes of these regulations, be taken to be an employer in relation to that person.

- (3) If a person who is an employer engages an independent contractor to carry out work in the course of which a person will be exposed to ionising radiation, that person is, for the purposes of these regulations, to be taken to be the employer in relation to—

- (a) that independent contractor; and
- (b) any person employed by that independent contractor to do work that the independent contractor has been engaged to carry out.

- (4) In these regulations, a requirement on an employer to do or provide any matter or thing for or in relation to a worker employed by the employer is, in relation to an employer who is a worker, to be taken to require that the person must do or provide for themselves any matter or thing that an employer would be required to provide for or in relation to a worker employed by the employer.

4—Annual effective dose

- (1) In these regulations—

annual effective dose means the sum of—

- (a) the effective dose received from external radiation during a calendar year; and
- (b) the committed effective dose received from radionuclides taken into the body during that year calculated in the manner set out in this regulation.

- (2) The committed effective dose received from radionuclides taken into the body must be calculated using the methods recommended by the International Commission on Radiological Protection for those radionuclides.

- (3) If—

- (a) the International Commission on Radiological Protection recommends or adopts more than 1 value for an item of data; and
- (b) the information required so as to choose which of those values is relevant to the circumstances of the case has not been obtained by the employer,

the value that gives rise to the largest value of committed equivalent dose must be used in the calculation.

- (4) In this regulation—

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

committed equivalent dose means the equivalent dose of ionising radiation that an organ or tissue is committed to receive from an intake of radioactive material.

5—Corresponding laws

For the purposes of the definition of *corresponding law* in section 3(1) of the Act, each of the following laws is declared to be a corresponding law:

- (a) *Australian Radiation Protection and Nuclear Safety Act 1998* of the Commonwealth;
- (b) *Mining Management Act 2001* of the Northern Territory;
- (c) *Radiation Act 2005* of Victoria;
- (d) *Radiation Control Act 1990* of New South Wales;
- (e) *Radiation Protection Act 2004* of the Northern Territory;
- (f) *Radiation Protection Act 2005* of Tasmania;
- (g) *Radiation Protection Act 2006* of the Australian Capital Territory;
- (h) *Radiation Safety Act 1975* of Western Australia;
- (i) *Radiation Safety Act 1999* of Queensland.

6—Mineral processing

For the purposes of the definition of *mineral processing* in section 3(1) of the Act, operations for the processing of petroleum are within the ambit of that definition.

7—Radiation facility

- (1) For the purposes of the definition of *radiation facility* in section 3(1) of the Act, the following facilities are prescribed:
 - (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 radioactive material;
 - (c) an irradiator that—
 - (i) contains more than 10^{13} Bq of a radioactive material; and
 - (ii) does not include shielding as an integral part of its construction;
 - (d) an irradiator that—
 - (i) contains more than 10^{13} Bq of a radioactive material; and
 - (ii) includes, as an integral part of its construction, shielding that does not prevent a person from being exposed to the source;
 - (e) an irradiator that—
 - (i) contains more than 10^{13} Bq of a radioactive material; and
 - (ii) includes shielding as an integral part of its construction; and

-
- (iii) has a source that is not inside that shielding during the operation of the irradiator;
 - (f) a facility used for the production, processing, use, storage, management or disposal of—
 - (i) sealed sources of radioactive materials of activity greater than 10^9 times the exempt activity; or
 - (ii) unsealed sources of radioactive materials of activity greater than 10^6 times the exempt activity;
 - (g) a facility where—
 - (i) a mixture of radioactive materials is produced, used, stored, managed or disposed of using the facility; and
 - (ii) the activity of the mixture is greater than the applicable level;
 - (h) a facility where the effective radiation exposure to be incurred by an individual associated with operation of the facility will, in a year, exceed—
 - (i) when taking into account all reasonably foreseeable circumstances— $10\ \mu\text{Sv}$; or
 - (ii) when taking into account low probability scenarios (where the probability of occurrence of a scenario does not exceed 10^{-2} per year)— $1\ \text{mSv}$ in a year.
- (2) For the purposes of subregulation (1)(g)(ii), the activity of the mixture is greater than the applicable level if, after dividing the activity of each radionuclide in the mixture by the exempt activity for that radionuclide and adding the fractions for each radionuclide, the result is greater than—
- (a) for a sealed source— 10^9 ;
 - (b) for an unsealed source— 10^6 .

8—Radioactive material

- (1) For the purposes of paragraph (a) of the definition of *radioactive material* in section 3(1) of the Act, subject to this regulation, the amount of a radioactive element or compound contained in a material or substance exceeds the prescribed concentration if—
- (a) in relation to radioactive material other than naturally occurring radioactive material—
 - (i) it contains 1 of the radionuclides specified in Table I.1 of the IAEA General Safety Requirements and the activity concentration of that radionuclide exceeds the activity concentration specified in that Table for that radionuclide; or
 - (ii) it contains 2 or more of the radionuclides specified in Table I.1 of the IAEA General Safety Requirements and the sum of the activity concentrations of the individual radionuclides when determined in accordance with the following formula is equal to or exceeds 1:

$$\sum_{x=1}^n \frac{Ax}{Alx} \geq 1$$

Where:

Ax is the activity concentration of the radionuclide

Alx is the activity concentration limit specified in Table I.1 of the IAEA General Safety Requirements for that radionuclide; or

(b) in relation to naturally occurring radioactive material—

- (i) it contains 1 of the radionuclides specified in Table I.3 of the IAEA General Safety Requirements and the activity concentration of that radionuclide exceeds the activity concentration specified in that Table for that radionuclide; or
- (ii) it contains 2 or more of the radionuclides specified in Table I.3 of the IAEA General Safety Requirements and the sum of the activity concentrations of the individual radionuclides when determined in accordance with the following formula is equal to or exceeds 1:

$$\sum_{x=1}^n \frac{Ax}{Alx} \geq 1$$

Where:

Ax is the activity concentration of the radionuclide

Alx is the activity concentration limit specified in Table I.3 of the IAEA General Safety Requirements for that radionuclide.

(2) For the purposes of paragraph (b) of the definition of *radioactive material* in section 3(1) of the Act, subject to this regulation, the activity of a radioactive element or compound contained in a material or substance exceeds the prescribed amount if—

(a) in relation to radioactive material other than naturally occurring radioactive material—

- (i) it contains 1 of the radionuclides specified in Table I.1 of the IAEA General Safety Requirements and the activity of that radionuclide exceeds the activity limit specified in that Table for that radionuclide; or
- (ii) it contains 2 or more of the radionuclides specified in Table I.1 of the IAEA General Safety Requirements and the sum of the activities of the individual radionuclides when determined in accordance with the following formula is equal to or exceeds 1:

$$\sum_{x=1}^n \frac{Ax}{Alx} \geq 1$$

Where:

Ax is the activity of the radionuclide

Alx is the activity limit specified in Table I.1 of the IAEA General Safety Requirements for that radionuclide; or

(b) in relation to naturally occurring radioactive material—

- (i) it contains 1 of the radionuclides specified in Table I.3 of the IAEA General Safety Requirements and the activity of that radionuclide exceeds the activity limit specified in that Table for that radionuclide; or
- (ii) it contains 2 or more of the radionuclides specified in Table I.3 of the IAEA General Safety Requirements and the sum of the activities of the individual radionuclides when determined in accordance with the following formula is equal to or exceeds 1:

$$\sum_{x=1}^n \frac{Ax}{Alx} \geq 1$$

Where:

Ax is the activity of the radionuclide

Alx is the activity limit specified in Table I.3 of the IAEA General Safety Requirements for that radionuclide.

- (3) Where 1 or more radioactive element or compound is present on the surface of an object, device or thing the prescribed concentration of the radioactive element or compound is—
 - (a) in respect of beta and gamma emitters and low toxicity alpha emitters—0.4 Bq/cm²; or
 - (b) in respect of any other alpha emitters—0.04 Bq/cm²;
 when averaged over an area of 300 cm².
- (4) The prescribed concentration of Radon-222, when present in air, is 1000 Bq/m³.
- (5) For the purposes of this regulation, each of the following substances is a **low toxicity alpha emitter**:
 - (a) when contained in ore or a physical and chemical concentrate—natural uranium, depleted uranium, natural thorium, uranium-235, uranium-238, thorium-232, thorium-228 and thorium-230;
 - (b) alpha emitters with a half-life of less than 10 days.

9—Identity check

For the purposes of the definition of **identity check** in section 3(1) of the Act, an identity check is as specified in Schedule E of the Code of Practice for the Security of Radioactive Sources for a person who is intended to have access to a security enhanced source.

10—Security background check

For the purposes of the definition of **security background check** in section 3(1) of the Act, a security background check is as specified in Schedule E of the Code of Practice for the Security of Radioactive Sources for a person who is intended to have access to a security enhanced source.

11—Security enhanced radioactive source

For the purposes of the definition of *security enhanced radioactive source* in section 3 of the Act, a radioactive source or aggregation of radioactive sources categorised as Category 1, 2 or 3 in accordance with Schedule B of the Code of Practice for the Security of Radioactive Sources is designated as a security enhanced radioactive source.

Part 3—Authorisations and accreditations**Division 1—Radiation management licences****12—Testing for developmental purposes**

- (1) For the purposes of section 18(2)(c) of the Act, the following operations are included within the ambit of that section:
 - (a) the storage of radioactive minerals and ores associated with testing for developmental purposes;
 - (b) the care and maintenance of facilities and equipment used in operations for testing for developmental purposes.
- (2) For the purposes of section 18(3) of the Act, the following classes of operations are prescribed:
 - (a) developmental testing operations involving the processing of a prescribed radioactive material if—
 - (i) the radioactive material is not subjected to a process of chemical treatment, hydrometallurgical treatment, pyrometallurgical treatment or electrometallurgical treatment; and
 - (ii) the amount of radioactive material processed or generated is less than 10 t per month;
 - (b) developmental testing operations involving the processing of a prescribed radioactive material if—
 - (i) the radioactive material is subjected to a process of chemical treatment, hydrometallurgical treatment, pyrometallurgical treatment or electrometallurgical treatment; and
 - (ii) the amount of radioactive material processed or generated is less than 10 t in any year;
 - (c) developmental testing operations in respect of which the Minister has made a determination that in the Minister's opinion the operation will not, in any reasonably foreseeable circumstances (which may include circumstances involving the failure of control systems), result in an annual dose above 1 mSv per year to any person;
 - (d) any other class of operations determined by the Minister by notice in the Gazette.

- (3) For the purposes of the definition of *prescribed radioactive material* in section 18(6) of the Act, subject to subregulation (4), the amount of a radioactive element or compound contained in a material or substance exceeds the prescribed concentration if—
- (a) in relation to radioactive material other than naturally occurring radioactive material—
- (i) it contains 1 of the radionuclides specified in Table I.1 of the IAEA General Safety Requirements and the activity concentration of that radionuclide exceeds the activity concentration specified in that Table for that radionuclide; or
 - (ii) it contains 2 or more of the radionuclides specified in Table I.1 of the IAEA General Safety Requirements and the sum of the activity concentrations of the individual radionuclides when determined in accordance with the following formula is equal to or exceeds 1:

$$\sum_{x=1}^n \frac{Ax}{Alx} \geq 1$$

Where:

Ax is the activity concentration of the radionuclide

Alx is the activity concentration limit specified in Table I.1 of the IAEA General Safety Requirements for that radionuclide; or
- (b) in relation to naturally occurring radioactive material—
- (i) it contains 1 of the radionuclides specified in Table I.3 of the IAEA General Safety Requirements and the activity concentration of that radionuclide exceeds the activity concentration specified in that Table for that radionuclide; or
 - (ii) it contains 2 or more of the radionuclides specified in Table I.3 of the IAEA General Safety Requirements and the sum of the activity concentrations of the individual radionuclides when determined in accordance with the following formula is equal to or exceeds 1:

$$\sum_{x=1}^n \frac{Ax}{Alx} \geq 1$$

Where:

Ax is the activity concentration of the radionuclide

Alx is the activity concentration limit specified in Table I.3 of the IAEA General Safety Requirements for that radionuclide.
- (4) For the purposes of the definition of *prescribed radioactive material* in section 18(6) of the Act, the prescribed concentration of Radon-222, when present in air, is 1000 Bq/m².

13—Mining or mineral processing operations

- (1) For the purposes of section 19(2)(c) of the Act, the care and maintenance of facilities and equipment used in operations for mining or mineral processing are included within the ambit of that section.
- (2) For the purposes of section 19(3) of the Act, the following classes of operations are prescribed:
 - (a) operations for the mining or processing of a prescribed radioactive material in which the radioactive material is not subjected to a process of chemical treatment and the amount of the radioactive material processed is less than 10 tonnes per calendar month;
 - (b) operations for the processing of a prescribed radioactive material in which the radioactive material is subjected to a process of chemical treatment including leaching, dissolution, solvent extraction or ion exchange and the amount of the radioactive material involved in the operation is less than 10 t in any 1 year;
 - (c) operations for mining or mineral processing in respect of which the Minister has made a determination that in the Minister's opinion the operations will not, in any reasonably foreseeable circumstances (which may include circumstances involving the failure of control systems), result in an annual dose above 1 mSv per year to any person;
 - (d) any other class of operations determined by the Minister by notice in the Gazette.
- (3) For the purposes of the definition of *prescribed radioactive material* section 19(7) of the Act, subject to subregulation (4), the amount of a radioactive element or compound contained in a material or substance exceeds the prescribed concentration if—
 - (a) in relation to radioactive material other than naturally occurring radioactive material—
 - (i) it contains 1 of the radionuclides specified in Table I.1 of the IAEA General Safety Requirements and the activity concentration of that radionuclide exceeds the activity concentration specified in that Table for that radionuclide; or
 - (ii) it contains 2 or more of the radionuclides specified in Table I.1 of the IAEA General Safety Requirements and the sum of the activity concentrations of the individual radionuclides when determined in accordance with the following formula is equal to or exceeds 1:

$$\sum_{x=1}^n \frac{Ax}{Alx} \geq 1$$

Where:

Ax is the activity concentration of the radionuclide

Alx is the activity concentration limit specified in Table I.1 of the IAEA General Safety Requirements for that radionuclide; or
 - (b) in relation to naturally occurring radioactive material—

- (i) it contains 1 of the radionuclides specified in Table I.3 of the IAEA General Safety Requirements and the activity concentration of that radionuclide exceeds the activity concentration specified in that Table for that radionuclide; or
- (ii) it contains 2 or more of the radionuclides specified in Table I.3 of the IAEA General Safety Requirements and the sum of the activity concentrations of the individual radionuclides when determined in accordance with the following formula is equal to or exceeds 1:

$$\sum_{x=1}^n \frac{Ax}{Alx} \geq 1$$

Where:

Ax is the activity concentration of the radionuclide

Alx is the activity concentration limit specified in Table I.3 of the IAEA General Safety Requirements for that radionuclide.

- (4) For the purposes of the definition of *prescribed radioactive material* in section 19(7) of the Act, the prescribed concentration of Radon-222, when present in air, is 1000 Bq/m³.

14—Radiation facilities—classes of persons not required to hold licence

For the purposes of section 20(2) of the Act, a person is not required to hold a radiation management licence authorising activities of a kind referred to in section 20(1) of the Act in respect of a radiation facility if—

- (a) the person holds a radiation management licence authorising activities of a kind referred to in section 18(1) or 19(1) of the Act at that facility; or
- (b) the person is the owner of the radiation facility in circumstances where—
 - (i) the radiation facility is registered in the name of the person under this Act as a sealed radioactive source or radiation apparatus; and
 - (ii) the Minister has determined that the facility complies with each relevant code applying in relation to the facility as a sealed radioactive source or radiation apparatus; or
- (c) the person is of a class determined by the Minister by notice in the Gazette.

15—Transport of radioactive material

- (1) For the purposes of section 21(2)(a) of the Act, the following circumstances are prescribed:
 - (a) circumstances in which an individual transports radioactive material in respect of which the individual—
 - (i) holds a radiation use licence authorising the use or handling of the radioactive material; and
 - (ii) is not required under the Act to hold a radiation management licence authorising possession of the radioactive material;

- (b) circumstances in which an individual transports radioactive material in the course of the individual's employment by the holder of a radiation management licence that applies in respect of the radioactive material;
 - (c) any other circumstances determined by the Minister by notice in the Gazette.
- (2) For the purposes of section 21(2)(b) of the Act, a class of persons determined by the Minister by notice in the Gazette is a prescribed class of persons.
- (3) For the purposes of section 21(2)(b) of the Act, the following classes of radioactive materials are prescribed:
 - (a) radioactive material that is, or is contained in, an excepted package;
 - (b) radioactive material that is contained within the body of a person or animal (whether living or dead);
 - (c) any other class of radioactive material determined by the Minister by notice in the Gazette.

16—Possession of radiation source

- (1) For the purposes of section 22(2)(a) of the Act, the following circumstances are prescribed:
 - (a) circumstances in which a person is in possession of a radiation source in the course of an activity of a kind referred to in section 18(1), 19(1), 20(1) or 21(1) of the Act and the activity is authorised by a radiation management licence;
 - (b) circumstances in which a person is in possession of a category 4 or category 5 radiation source (as determined in accordance with the Code of Practice for the Security of Radioactive Sources) during, or for the purposes of, its transportation;
 - (c) any other circumstances determined by the Minister by notice in the Gazette.
- (2) For the purposes of section 22(2)(b) of the Act, a class of persons determined by the Minister by notice in the Gazette is a prescribed class of persons.
- (3) For the purposes of section 22(2)(b) of the Act, the following classes of things are prescribed:
 - (a) an article, device or other thing that only emits non-ionising radiation;
 - (b) a radiation source that is an unsealed radioactive material listed in Schedule 6 clause 2, in the specified circumstances;
 - (c) a radiation source that is apparatus of a class prescribed by regulation 21 for the purposes of section 27(2) of the Act;
 - (d) a radiation source that is a sealed radioactive source of a class prescribed by regulation 20 for the purposes of section 26(3) of the Act;
 - (e) any other class of things determined by the Minister by notice in the Gazette.

Division 2—Radiation use licences**17—Use or handling of radioactive material**

- (1) For the purposes of section 23(2) of the Act, the substances that are listed, or are contained in a device that is listed, in Schedule 6 clause 2, in the specified circumstances, are prescribed substances.
- (2) For the purposes of section 23(2) of the Act, the following classes of persons are prescribed:
 - (a) persons who use or handle any sealed radioactive source, being a source with an activity of less than—
 - (i) for group 1 and 2 radionuclides—5 MBq; or
 - (ii) for group 3 and 4 radionuclides (not including tritium in gaseous tritium light sources)—50 MBq,and who use or handle such a sealed radioactive source under the directions of a person who holds a radiation use licence authorising the use or handling (as the case requires) of the sealed radioactive source;
 - (b) persons who use a sealed radioactive source that is contained in a radiation gauge but do not use or handle the source at any time other than by operating the source control mechanism under the directions of a person who holds a radiation use licence authorising the use of the sealed radioactive source;
 - (c) persons who handle a sealed radioactive source that is contained in a radiation gauge under the direct supervision of a person who holds a radiation use licence authorising the handling of the sealed radioactive source, and do not dismantle the source container nor handle the source while it is out of the source container;
 - (d) persons who use or handle an unsealed radioactive material in type C premises and are working under the directions of a person who—
 - (i) supervises the persons who work in those premises; and
 - (ii) holds a radiation use licence entitling the holder to use or handle the radioactive materials used or handled in those premises in the manner in which they are used or handled in those premises;
 - (e) persons, being members of the public, who handle any radioactive material that is packaged for transport in accordance with Part 8;
 - (f) persons who, being members of the nursing staff employed in a hospital ward in which patients are treated by the use of a radioactive material, are supervised by a registered nurse in charge of that ward who holds a radiation use licence entitling the holder to use or handle such a radioactive material in that ward;
 - (g) persons who are patients undergoing diagnosis or treatment by use of a radioactive material;

- (h) persons who use, for the purpose of industrial radiography, a sealed radioactive source that is located in a fully protected enclosure and who use that source under the supervision of a person who holds a radiation use licence authorising the use of the sealed radioactive source;
- (i) persons who use or handle any radioactive material in the course of operations authorised by a radiation management licence;
- (j) any other class of persons determined by the Minister by notice in the Gazette.

18—Operation of radiation apparatus

- (1) For the purposes of section 24(2) of the Act, the following classes of persons are prescribed:
 - (a) persons who operate ionising radiation apparatus according to the instructions of a veterinary surgeon who—
 - (i) holds a radiation use licence in respect of the apparatus; and
 - (ii) is present in the room or other place in which the apparatus is located; and
 - (iii) is not able to operate the apparatus themselves by reason of the nature of the radiological examination being carried out;
 - (b) persons who operate any enclosed X-ray analysis apparatus, but only when the interlocked barriers are in place and who operate such apparatus under the directions of a person who holds a radiation use licence in respect of the apparatus;
 - (c) persons who operate for the purposes of industrial radiography an ionising radiation apparatus that is located in a fully protected enclosure, and who operate that apparatus under the directions of a person who holds a radiation use licence in respect of the apparatus;
 - (d) any other class of persons determined by the Minister by notice in the Gazette.
- (2) For the purposes of subsection 24(2) of the Act, the following classes of apparatus are prescribed:
 - (a) ionising radiation apparatus that produces ionising radiation incidental to its function (including electron microscopes and apparatus containing a cathode ray tube or an electronic valve) if the apparatus does not, in normal operating conditions, cause an equivalent dose rate exceeding 1 $\mu\text{Sv/h}$ at a distance of 0.1m from any accessible surface of the apparatus;
 - (b) closed cabinet X-ray equipment for the examination of letters, packages, baggage, freight and other articles that has been designed and constructed so as to prevent a person entering the cabinet while the equipment is being put to its normal use;
 - (c) apparatus listed in Schedule 6 clause 1;
 - (d) any other class of apparatus determined by the Minister by notice in the Gazette.

Division 3—Registration of premises and radiation apparatus**19—Premises in which unsealed radioactive materials are handled or kept**

- (1) For the purposes of section 25(2) of the Act, the following classes of premises are prescribed:
 - (a) premises in which radioactive materials are stored in transit during the course of transport in accordance with the Act and these regulations;
 - (b) premises in which unsealed radioactive materials are kept or handled in the course of operations authorised by a radiation management licence;
 - (c) premises in which unsealed radioactive ores that have not been subject to chemical processing are handled or kept in quantities of less than 100 kilograms;
 - (d) premises at which unsealed radioactive sources are kept or handled while let out on hire, if the period of hire is 3 months or less;
 - (e) any other class of premises determined by the Minister by notice in the Gazette.
- (2) For the purposes of section 25(2) of the Act, the unsealed radioactive materials listed in Schedule 6 clause 2, in the specified circumstances, are a prescribed class of substance.

20—Sealed radioactive sources

For the purposes of section 26(3) of the Act, the following classes of sealed radioactive sources are prescribed:

- (a) sealed radioactive sources listed in Schedule 6 clause 2, in the circumstances specified;
- (b) sealed radioactive sources held within a facility the operations of which are authorised by a radiation management licence;
- (c) sealed radioactive sources that are held only as stock for the purposes of sale and are not used;
- (d) sealed radioactive sources that have been let out on hire for a period of 3 months or less and in respect of which the person receiving the source on hire holds a radiation management licence;
- (e) any other class of sealed radioactive sources determined by the Minister by notice in the Gazette.

21—Radiation apparatus

- (1) For the purposes of section 27(2) of the Act, the following classes of apparatus are prescribed:
 - (a) ionising radiation apparatus that produces ionising radiation incidental to its function (including electron microscopes and apparatus containing a cathode ray tube or an electronic valve) if the apparatus does not, in normal operating conditions, cause an equivalent dose rate exceeding 1 $\mu\text{Sv/h}$ at a distance of 0.1 m from any accessible surface of the apparatus;

- (b) ionising radiation apparatus made incapable of operation;
 - (c) ionising radiation apparatus held as stock for sale by a person who has complied with regulation 36 (other than apparatus operated by another person and located at premises of a person who has not complied with that regulation);
 - (d) ionising radiation apparatus being installed by a person who has complied with regulation 36;
 - (e) apparatus listed in Schedule 6 clause 1;
 - (f) any other class of apparatus determined by the Minister by notice in the Gazette.
- (2) For the purposes of this regulation, apparatus is incapable of operation if it would require specialist knowledge to make it operable.

Division 4—Accreditations and authorisations—general provisions

22—Applications, transfers, suspension and cancellation

- (1) For the purposes of sections 34(6)(c), 40(3)(c) and 42(1)(e) of the Act, the following kind of offences are prescribed:
- (a) an offence involving a radiation source;
 - (b) an offence involving a firearm or offensive weapon;
 - (c) an offence involving the misuse of a hazardous material;
 - (d) any other offence against a law of South Australia, the Commonwealth, another State or a foreign country, being a law relating to the health and safety of people or the environment, if—
 - (i) the offence was committed within the period of 10 years immediately before the relevant time; and
 - (ii) the offence was punishable by a fine of \$5 000 or more, or by a term of imprisonment of 1 year or more.
- (2) For the purposes of sections 34(6)(d), 34(6)(e), 40(3)(d) and 40(3)(e) of the Act, the following Acts are prescribed:
- (a) *Environment Protection Act 1993*;
 - (b) *Firearms Act 2015*;
 - (c) *Gene Technology Act 2001*;
 - (d) *Health Care Act 2008*;
 - (e) *Health Practitioner Regulation National Law (South Australia) Act 2010*;
 - (f) *Landscape South Australia Act 2019*;
 - (g) *Mining Act 1971*;
 - (h) *Petroleum and Geothermal Energy Act 2000*;
 - (i) *Petroleum (Submerged Lands) Act 1982*;
 - (j) *Veterinary Practice Act 2003*;

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Part 3—Authorisations and accreditations

Division 4—Accreditations and authorisations—general provisions

- (k) *Work Health and Safety Act 2012*;
- (l) an Act of another jurisdiction substantially corresponding to an Act referred to in paragraphs (a) to (k) (inclusive).
- (3) For the purposes of sections 34(6)(g) and 40(3)(g) of the Act, the following are prescribed grounds:
 - (a) there would be a material risk to public health and safety if the accreditation or authorisation were to be granted or transferred (as the case requires);
 - (b) the proposed use of radiation is inappropriate or unjustified.
- (4) For the purposes of section 40(4) of the Act, a radiation use licence is a prescribed kind of authorisation.
- (5) In this regulation—

firearm has the same meaning as in the *Firearms Act 2015*;

hazardous material means any substance or material which by its nature poses, directly or indirectly, a risk of serious adverse effect to the health or safety of human beings or the environment, including (without limitation) the following kinds of substances or materials:

- (a) explosive or highly flammable or volatile substances;
- (b) toxic or poisonous substances (including those that may involve delayed or chronic effects to humans or delayed adverse impacts to the environment by means of bioaccumulation);
- (c) highly corrosive or unstable substances;
- (d) substances which, when mixed with air or water, are liable to give off toxic gases in dangerous quantities;
- (e) substances containing viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans;
- (f) substances capable of yielding another substance or material of a kind referred to in paragraph (a) to (e) (such as after disposal);

offensive weapon means—

- (a) an article or substance made or adapted for use for causing, or threatening to cause, personal injury or incapacity including an explosive or an imitation explosive (that is, an article or substance intended to be taken for an explosive); or
- (b) an article or substance that a person has—
 - (i) for the purpose of causing personal injury or incapacity; or
 - (ii) in circumstances in which another is likely to feel reasonable apprehension that the person has it for the purpose of causing personal injury or incapacity;

relevant time means—

- (a) in relation to an application for an accreditation or authorisation, or transfer of an authorisation—the date of the application; or

- (b) in relation to the suspension or cancellation of an accreditation or authorisation—the date of the suspension or cancellation.

23—Radiation management plans

For the purposes of section 34(4) of the Act, a radiation management plan required to be submitted under that section must comply with the *Code of Compliance for Radiation Management Plans 2022* published by the authority, as in force from time to time.

24—Holder of accreditation or authorisation to notify Minister on failure of security background check

- (1) A notice required to be given under section 44(1)(a) of the Act by the holder of an authorisation or accreditation who has failed a security background check must include the following information:
 - (a) the authorisation holder's name, address, contact phone number and email address;
 - (b) the authorisation number;
 - (c) a copy of the notice of determination of the security background check.
- (2) A notice to which subregulation (1) applies must be given to the Minister within 7 days of receipt of the notice of determination of the security background check.

25—Holder of a radiation use licence to notify Minister on suspension, cancellation, or imposition of conditions on right to practice

- (1) A notice required to be given to the Minister by a health practitioner under section 44(2)(a) of the Act relating to the suspension or cancellation of, or the imposition of conditions on, the health practitioner's accreditation, licence, registration or other authority under the *Health Practitioner Regulation National Law (South Australia) Act 2010* or other law must include the following information:
 - (a) the health practitioner's name, address, contact phone number and email address;
 - (b) details of the affected accreditation, licence, registration or other authority;
 - (c) details of the suspension, cancellation or imposition of conditions including a copy of the notice of determination and reasons given to the health practitioner.
- (2) A notice required to be given to the Minister by a person under section 44(2)(b) of the Act relating to the suspension or cancellation of, or the imposition of conditions on, the person's accreditation, licence, registration or other authority under an Act or law regulating the person's right to practice must include the following information:
 - (a) the person's name, address, contact phone number and email address;
 - (b) details of the affected accreditation, licence, registration or other authority;
 - (c) details of the suspension, cancellation or imposition of conditions including a copy of the notice of determination and reasons given to the person.

- (3) A notice to which this regulation applies must be given to the Minister within 7 days of receipt of the notice of determination of the suspension, cancellation or imposition of conditions (as the case requires).

26—Prescribed circumstances about which holders of accreditations and authorisations must notify Minister

- (1) For the purposes of section 44(1)(b) of the Act, the following circumstances are prescribed circumstances in relation to the holder of an accreditation or authorisation:
- (a) the holder enters into an agreement to sell or transfer a radiation apparatus or radiation source to another person;
 - (b) there is a change to the address for service of the holder;
 - (c) there is a change to the location of a fixed radiation apparatus in respect of which the holder's accreditation or authorisation applies;
 - (d) structural alterations are made to registered premises in respect of which the holder's accreditation or authorisation applies;
 - (e) modifications are made to a source container housing a registered sealed radioactive source in respect of which the holder's accreditation or authorisation applies.
- (2) A notice required to be given to the Minister under section 44 of the Act in respect of the circumstances prescribed in subregulation (1)(a)—
- (a) must include the following information:
 - (i) the authorisation holder's name, address, contact phone number and email address;
 - (ii) the name, address, contact phone number and email address of the person to whom the radiation apparatus or radiation source is to be, or has been, transferred;
 - (iii) a description of the radiation apparatus or radiation source including any details of registration under the Act;
 - (iv) evidence of the agreement of the transfer of a kind approved by the Minister; and
 - (b) must be given within 7 days of entering into an agreement to sell or transfer the radiation apparatus or radiation source.
- (3) A notice required to be given to the Minister under section 44 of the Act in respect of the circumstances prescribed in subregulation (1)(b) must include the new address for service of the holder and be given within 14 days of the change of the address for service.
- (4) A notice required to be given to the Minister under section 44 of the Act in respect of the circumstances prescribed in subregulation (1)(c) must include details of the new location of the fixed apparatus and be given within 14 days of the change of location.
- (5) A notice required to be given to the Minister under section 44 of the Act in respect of the circumstances prescribed in subregulation (1)(d) must include details of the structural alterations that have been made and be given within 14 days of the completion of the alterations.

- (6) A notice required to be given to the Minister under section 44 of the Act in respect of the circumstances prescribed in subregulation (1)(e) must include details of the modifications made to the source container and be given within 14 days of the completion of the modifications.

Division 5—Miscellaneous

27—Abandonment of radiation sources—prescribed circumstances

Pursuant to section 29(2) of the Act, section 29(1) of the Act does not apply in respect of a radiation source in circumstances in which—

- (a) a radiation management licence is not required under the Act for the possession or transportation of the radiation source; and
- (b) a radiation use licence is not required under the Act for the use or handling of the radiation source; and
- (c) premises in which the radiation source is kept or handled are not required under the Act to be registered in the name of the occupier of the premises; and
- (d) the radioactive source is not required to be registered under the Act in the name of the owner of the source; and
- (e) if the radiation source forms part of a radiation apparatus—
 - (i) a radiation use licence is not required under the Act to operate the apparatus; and
 - (ii) the apparatus is not required to be registered under the Act in the name of the owner.

28—Minister's determinations

- (1) If the Minister makes a determination for the purposes of a provision of this Part, notice of the determination—
 - (a) must be published on the Department's website; and
 - (b) may also be published in the Gazette.
- (2) As soon as practicable after a determination of the Minister is made for the purposes of a provision of this Part, a notice in writing setting out the date on which the determination is published and the terms of the determination must be given to a person directly affected by the determination in a manner and form that, in the opinion of the Minister, will bring the determination to the attention of those persons.
- (3) The Minister may, by further determination, vary or revoke a determination.

Part 4—Ionising radiation sources

Division 1—Preliminary

29—Interpretation

In this Part, a reference to a *radiation source* is a reference to—

- (a) a radiation apparatus; or
- (b) a sealed radioactive source; or
- (c) an unsealed radioactive material,

that emits or may emit ionising radiation.

Division 2—General requirements

30—Radiation sources to comply with relevant codes

A radiation source must comply with the provisions of a relevant code that are expressed as mandatory provisions applying in respect of the radiation source.

31—Prohibition on operation or use of non-complying radiation source

- (1) A person must not operate or use a radiation source that does not comply with the provisions of a relevant code that are expressed as mandatory provisions applying in respect of the radiation source.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) The registered owner of a radiation source must not cause, suffer or permit a person to operate or use a radiation source that does not comply with the provisions of a relevant code that are expressed as mandatory provisions applying in respect of the radiation source.

Maximum penalty: \$10 000.

Expiation fee: \$500.

32—Duties of registered owner of radiation source

- (1) The registered owner of a radiation source—
 - (a) must ensure that the source is constructed, shielded, installed, operated, maintained and managed in accordance with the requirements of a relevant code; and
 - (b) must comply with the provisions of a relevant code that are expressed as mandatory provisions imposed on an owner of a radiation source.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) The registered owner of a sealed radioactive source must ensure that the source is contained in accordance with the provisions of a relevant code that are expressed as mandatory provisions.

Maximum penalty: \$10 000.

Expiation fee: \$500.

33—Duty of operator or user of radiation source

A person must, in operating or using a radiation source—

- (a) comply with the provisions of a relevant code applying to the operation or use of the source that are expressed as mandatory provisions; and
- (b) have regard to provisions of a relevant code as to the operation or use of the source that are not expressed as mandatory provisions but are expressed as recommendations in relation to the operation or use of the source.

Maximum penalty: \$10 000.

Expiation fee: \$500.

34—Interaction between regulations, authorisations and relevant codes

If the provisions of a relevant code are inconsistent with these regulations, these regulations prevail to the extent of the inconsistency.

Division 3—Ionising radiation apparatus

Subdivision 1—Sale or disposal of radiation apparatus

35—Application of Subdivision

This Subdivision applies to a business during the course of which ionising radiation apparatus is sold, installed or maintained.

36—Duty to give Minister notice before selling, installing or maintaining ionising radiation apparatus in course of business

A person must not carry on a business to which this Subdivision applies unless the person has given the Minister notice in writing that—

- (a) contains the full name and address of the person carrying on the business or, in the case of a company, the name of the company and the address of its registered office; and
- (b) states whether it is intended to hold a stock of ionising radiation apparatus, and if so, what kind of apparatus is likely to be held, where it is likely to be held and in what quantities; and
- (c) states whether any ionising radiation apparatus that is likely to be held in stock is likely to be operable; and
- (d) states whether any person (whether the person carrying on the business or an employee at the business) is likely to be called on to operate ionising radiation apparatus in the course of carrying on the business; and

- (e) if ionising radiation apparatus is likely to be sold during the course of carrying on the business—contains a statement setting out full details of the kind of apparatus that is likely to be sold.

Maximum penalty: \$10 000.

Expiation fee: \$500.

37—Duty to give Minister notice of defective apparatus sold or installed

- (1) If, during the course of carrying on a business to which this Subdivision applies, a person sells or installs ionising radiation apparatus and after the sale or installation becomes aware that—

- (a) the apparatus the person has sold or installed has a defect; or
- (b) apparatus of the same class or kind as the apparatus the person has sold or installed has a defect,

the person must, within 7 days of becoming aware of the defect, give the Minister notice in writing containing—

- (c) details of the defect; and
- (d) the class or kind of apparatus affected by the defect; and
- (e) the likely effects of the defect; and
- (f) details of the steps the person is taking or intends to take to rectify the defect.

- (2) A person who fails to comply with subregulation (1) is guilty of an offence.

Maximum penalty: \$20 000 or imprisonment for 5 years.

- (3) In this regulation—

defect means a fault in the design or construction of the apparatus that is likely to increase the dose of ionising radiation that may be received by a person from the apparatus.

38—Duty to give Minister notice of changes etc to information supplied about defective apparatus sold or installed

If a person who gives the Minister a notice under regulation 37 becomes aware of—

- (a) a change in any information the person has supplied; or
- (b) additional information relating to the information supplied,

the person must, within 7 days of becoming aware of the changed or additional information, give the Minister a further notice in writing setting out in full the details of the change to or information additional to the information supplied.

Maximum penalty: \$10 000.

Expiation fee: \$500.

39—Duties of person receiving order for sale of apparatus

If a person who carries on a business to which this Subdivision applies receives an order for the sale of ionising radiation apparatus, the person must, if intending to accept the order, give the person making the order—

- (a) a notice in the form determined by the Minister; and

- (b) an application, in the form determined by the Minister, for a radiation management licence authorising the operation of ionising radiation apparatus; and
- (c) an application, in the form determined by the Minister, for a radiation management licence authorising the possession of a radiation source.

Maximum penalty: \$10 000.

Expiation fee: \$500.

40—Duty to give Minister notice of sale of portable or mobile apparatus

If a person who carries on a business to which this Subdivision applies intends to deliver to another person a portable or mobile ionising radiation apparatus, the person must, at least 7 days before the intended delivery, give the Minister notice in writing containing—

- (a) the name of the person who sold the apparatus; and
- (b) the name of the person to whom the apparatus was sold; and
- (c) a statement setting out the make, model, class or kind of apparatus that was sold, and the address to which it is to be delivered.

Maximum penalty: \$10 000.

Expiation fee: \$500.

41—Duty to give Minister notice of intention to install fixed apparatus

If a person who carries on a business to which this Subdivision applies intends to install any fixed ionising radiation apparatus, the person must, at least 7 days before commencing the installation, give the Minister notice in writing containing—

- (a) the name of the person who sold the apparatus; and
- (b) the name of the person to whom the apparatus was sold; and
- (c) a statement setting out the make, model, class or kind of apparatus that was sold, and the address at which it will be installed.

Maximum penalty: \$10 000.

Expiation fee: \$500.

42—Duty to give Minister notice of sale or replacement of certain components of apparatus

- (1) If a person who carries on a business to which this Subdivision applies sells or replaces—
 - (a) an X-ray tube or housing in medical, dental or veterinary apparatus; or
 - (b) a high voltage generator in medical, dental or veterinary apparatus; or
 - (c) a high voltage generator, tube, housing or sample changer in X-ray analysis apparatus,

the person must, within 7 days of carrying out the sale or replacement, give the Minister notice in writing—

- (d) identifying the owner of the apparatus; and

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- (e) containing the address at which the apparatus is located; and
- (f) containing details of the make, model and serial number (or other identification information) of the apparatus; and
- (g) containing details of the make and model of the components sold or replaced.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) This regulation does not apply in relation to a person who sells or replaces a component of apparatus if—
 - (a) the sale or replacement occurs during a period when the apparatus has been let on hire by the person; and
 - (b) the period of hire is 3 months or less.

43—Duty to give Minister notice of sale or disposal of apparatus

- (1) If a person who does not carry on a business to which this Subdivision applies sells or otherwise disposes of any ionising radiation apparatus the person must, within 14 days of the sale or disposal, give the Minister notice in writing containing—
 - (a) the name and address of the person who sold or disposed of the apparatus; and
 - (b) the registration number of the apparatus sold or disposed of; and
 - (c) the date of the sale or disposal; and
 - (d) the manner of the sale or disposal; and
 - (e) whether the apparatus was made incapable of operation before the sale or disposal; and
 - (f) if the apparatus was sold—the name and address of the person to whom the apparatus was sold.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) This regulation does not apply in relation to the sale or disposal of ionising radiation apparatus if notice of the sale or disposal has been given to the Minister in accordance with regulation 26.

44—Minister's power to require further information

- (1) If a person has given a notice or supplied information to the Minister in accordance with this Subdivision, the Minister may require the person, by notice in writing, to supply such additional information as the Minister thinks fit.
- (2) A person must comply with the requirements of a notice under subregulation (1) within 28 days, or such longer period as the Minister may approve, of service of the notice.

Maximum penalty: \$10 000.

Expiation fee: \$500.

45—Certain apparatus to be made inoperable before sale or disposal

- (1) A person who sells or otherwise disposes of any ionising radiation apparatus and believes on reasonable grounds that the apparatus will not be operated after the sale or disposal must make the apparatus incapable of operation before the sale or disposal.
Maximum penalty: \$10 000.
Expiation fee: \$500.
- (2) For the purposes of this regulation, apparatus is incapable of operation if it would require specialist knowledge to make it operable.

Subdivision 2—Special requirements for the short-term hire of ionising radiation apparatus**46—Duties applying in relation to short-term hire of ionising radiation apparatus**

- (1) A person who carries on a business during the course of which ionising radiation apparatus is let on hire must, if the period of hire for an ionising radiation apparatus is 3 months or less—
 - (a) maintain a register of ionising radiation apparatus let on hire (the *register*) and enter in the register the following information in respect of each ionising radiation apparatus:
 - (i) the registered number of the apparatus;
 - (ii) if the apparatus is being moved in a vehicle for the purposes of the hire or loan—the registration number of that vehicle;
 - (iii) the site, district or other locality at which the apparatus is to be used while on hire;
 - (iv) the name of the person to whom the apparatus is let on hire;
 - (v) the authorisation number for the radiation management licence held by the person to whom the apparatus is let on hire authorising the possession of the apparatus;
 - (vi) the name of the person who takes charge of the apparatus at the commencement of the hire period;
 - (vii) the date on which the apparatus is taken by the person who has taken charge of the apparatus;
 - (viii) the date on which the apparatus is returned to the premises controlled by the person supplying the apparatus on hire;
 - (b) ensure, before the supply on hire, that the person to whom the source is let on hire holds a radiation management licence authorising the possession of the source; and
 - (c) ensure that the apparatus is, before its supply on hire, compliant with a provision of these regulations applying in respect of the apparatus (including any relevant code applying to the apparatus under these regulations); and

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- (d) ensure that appropriate systems and processes are in place for the ongoing maintenance of the apparatus during the term of the hire.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) A person who takes charge of ionising radiation apparatus to which subregulation (1) applies must sign the register on the date on which they take charge of the apparatus.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) When ionising radiation apparatus to which subregulation (1) applies is returned to the premises controlled by the person supplying the apparatus on hire, the person returning it must sign the register on the date on which it is returned and indicate in the register—

- (a) details of any abnormal occurrence which had occurred while the person was in charge of the apparatus, being an occurrence that—

- (i) is indicative of some fault or defect in the source, its capsule, container or source control mechanism; and

- (ii) may have damaged the source, its capsule, container or source control mechanism; and

- (b) details of any fault or defect the person observed in the apparatus, apparatus capsule, apparatus container or apparatus control mechanism.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (4) A person who takes ionising radiation apparatus on hire for a period of 3 months or less must report any damage occurring to the apparatus during the period of hire to the person who supplied the apparatus for hire as soon as reasonably practicable after the damage occurs.

Maximum penalty: \$10 000.

Expiation fee: \$500.

Subdivision 3—Special requirements for radiation apparatus**47—Prohibition on use of dental radiography apparatus with intra-oral X-ray tube**

A person must not use dental radiography radiation apparatus that is designed to be used with the X-ray tube inside a patient's mouth to irradiate a human being.

Maximum penalty: \$10 000.

Expiation fee: \$500.

Division 4—Radioactive materials**Subdivision 1—Sale of radioactive materials and devices containing radioactive material****48—Application of Subdivision**

This Subdivision applies to a business during the course of which radioactive material, or a device that contains radioactive material, is sold, installed or maintained.

49—Duty to give Minister notice before carrying on certain business

A person must not carry on a business to which this Subdivision applies unless the person has first given the Minister notice in writing that—

- (a) contains the full name and address of the person carrying on the business or, in the case of a company, the name of the company and the address of its registered office; and
- (b) states the number of persons who will in the course of carrying on the business handle any radioactive material or device containing any radioactive material; and
- (c) states whether or not any radioactive material or any device containing a radioactive material will be stowed or stored during the course of carrying on the business and, if so, where it is likely that it will be stowed or stored; and
- (d) if it is proposed to sell any radioactive material or any device containing a radioactive material—states details of the material or device.

Maximum penalty: \$10 000.

Expiation fee: \$500.

50—Duty to give Minister notice of defective registrable device sold or installed in course of business

- (1) If, during the course of carrying on a business to which this Subdivision applies, a person sells or installs a registrable device and after the sale or installation becomes aware that—

- (a) the registrable device the person has sold or installed has a defect; or
- (b) registrable devices of the same class or kind as the registrable device the person has sold or installed have a defect,

the person must, within 7 days of becoming aware of the defect, give the Minister notice in writing containing—

- (c) details of the defect; and
- (d) the class or kind of registrable device affected by the defect; and
- (e) the likely effects of the defect; and
- (f) details of the steps the person is taking or intends to take to rectify the defect.

- (2) A person who fails to comply with subregulation (1) is guilty of an offence.

Maximum penalty: \$20 000 or imprisonment for 5 years.

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- (3) If a person gives a notice to the Minister in accordance with subregulation (1), the person must, within 7 days of becoming aware of—
- (a) any change in the information the person has already supplied; or
 - (b) any additional information relating to the information already supplied,
- serve on the Minister a further notice in writing setting out full details of the change or the information additional to the information already supplied.
- Maximum penalty: \$10 000.
- Expiation fee: \$500.
- (4) In this regulation—
- defect* means a fault in the design or the construction of the registrable device that is likely to increase the dose of ionising radiation that may be received by any person from the registrable device.

51—Person selling registrable device to give purchaser certain information

If a person who carries on a business to which this Subdivision applies receives an order for the sale of a registrable device, the person must, if intending to sell the device, serve on the person to whom they intend to sell the device the information required by the Minister in the form approved by the Minister.

Maximum penalty: \$10 000.

Expiation fee: \$500.

52—Duty to give Minister notice of sale of mobile registrable device

If a person who carries on a business to which this Subdivision applies intends to deliver a mobile registrable device that the person has sold, the person must, at least 7 days before the intended delivery, give the Minister notice in writing containing—

- (a) the name of the person to whom the device has been sold; and
- (b) the address to which the device is to be delivered; and
- (c) full details of the device sold.

Maximum penalty: \$10 000.

Expiation fee: \$500.

53—Duty to give Minister notice of intention to install fixed registrable device

A person who carries on a business to which this Subdivision applies and who intends to install at any premises a registrable device that is to be fixed in place, the person must, at least 7 days before commencing the installation, give the Minister notice in writing containing—

- (a) the name of the person to whom the device has been sold; and
- (b) the address at which the device is to be installed; and
- (c) full details of the device to be installed.

Maximum penalty: \$10 000.

Expiation fee: \$500.

54—Person supplying registrable device to ensure markings comply with ISO standard

- (1) Subject to subregulation (2), a person must not supply a registrable device unless the marking of the source capsule of the device complies with—
- (a) in the case of a registrable device built before 1 January 2012—the requirements of International Standard *ISO 2919:1999 (E) Radiation protection – sealed radioactive sources – General requirements and classification* published by the International Organisation for Standardisation, as in force from time to time; or
 - (b) in any other case—the requirements of International Standard *ISO 2919:2012 (E) Radiological protection – sealed radioactive sources – General requirements and classification* published by the International Organisation for Standardisation, as in force from time to time.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) This regulation does not apply in relation to a registrable device containing a sealed radioactive source in respect of which a relevant code applies.

55—Person selling sealed radioactive source required to be registered to supply certification

- (1) Subject to subregulation (2), a person must not sell a sealed radioactive source that is required by the Act to be registered unless at the time of such sale the person supplies with the source—
- (a) in the case of a source built before 1 January 2012—a certificate that meets the relevant requirements of International Standard *ISO 2919:1999 (E) Radiation protection – sealed radioactive sources – General requirements and classification* published by the International Organisation for Standardisation, as in force from time to time; or
 - (b) in any other case—
 - (i) a certificate that—
 - (A) complies with the requirements of International Standard *ISO 2919:2012 (E) Radiological protection – sealed radioactive sources – General requirements and classification* published by the International Organisation for Standardisation, as in force from time to time; and
 - (B) contains the following information:
 - the radionuclide contained in the device;
 - the activity of the radionuclide and the date on which it was measured;
 - the chemical form of the radionuclide;
 - the manufacturer of the device;
 - the model of the device or details of the encapsulation; and

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(ii) if applicable—

(A) a special form certificate; and

(B) a container certificate.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) This regulation does not apply in relation to a device containing a sealed radioactive source in respect of which a relevant code applies.

56—Duty to give Minister notice of sale of registered sealed radioactive source

- (1) If a person, not being a person who carries on a business to which this Subdivision applies, sells a sealed radioactive source that is registered by the Minister under the Act, the person must, within 7 days of the sale, give the Minister notice in writing containing—
- (a) the name and address of the registered owner of the source prior to the sale; and
 - (b) the name and address of the person to whom the source has been sold; and
 - (c) the registered number of the source.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) This regulation does not apply in relation to the sale or disposal of a sealed radioactive source if notice of the sale or disposal has been given to the Minister in accordance with regulation 26.

57—Duty to give Minister notice of sales of radioactive material

A person who carries on a business to which this Subdivision applies must—

- (a) within 3 months of first notifying the Minister in accordance with regulation 49; and
- (b) thereafter at intervals of not longer than 3 months,

give the Minister notice in writing containing—

- (c) details of all sales of radioactive material made by the person during the preceding 3 months or since the last notice given by the person in accordance with this regulation; and
- (d) in respect of each sale—
 - (i) the name and address of the person to whom the sale was made; and
 - (ii) the radionuclides sold and total activity of each radionuclide sold; and
 - (iii) if the device sold is a sealed radioactive source larger than 50 MBq—the activity of each such sealed radioactive source sold; and

- (iv) for each radionuclide sold, the total activity of each such radionuclide supplied in unsealed form.

Maximum penalty: \$10 000.

Expiation fee: \$500.

58—Minister's power to require additional information

- (1) The Minister may, by notice in writing served on a person who has given notice in accordance with this Subdivision, require the person to supply such additional information as the Minister thinks fit.
- (2) A person on whom notice is served under subregulation (1) must comply with the notice within 28 days, or such longer period as the Minister may approve, of service of the notice.

Maximum penalty: \$10 000.

Expiation fee: \$500.

59—Prohibition on selling consumer products

- (1) A person must not sell a consumer product.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) In subregulation (1)—

consumer product means a device, article or thing that contains a radioactive material and is designed and constructed for personal or domestic use and not for use during the course of employment or the carrying on of an occupation, but does not include an approved ionisation chamber smoke detector or any device article or thing built before 1 January 1982.

60—Prohibition on selling non-complying ionisation chamber smoke detector

A person must not sell an ionisation chamber smoke detector unless that model of detector complies with AS 3786–2014 *Smoke alarms using scattered light, transmitted light or ionization* as in force from time to time.

Maximum penalty: \$10 000.

Expiation fee: \$500.

Subdivision 2—Special requirements for the short-term hire of sealed radioactive sources

61—Duties applying in relation to short-term hire of sealed radioactive sources

- (1) A person who carries on a business during the course of which sealed radioactive sources are let on hire must, if the period of hire for a sealed radioactive source is 3 months or less—
- (a) maintain a register of sealed radioactive sources let on hire (the **register**) and enter in the register the following information in respect of each sealed radioactive source:
- (i) the registered number of the source;

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- (ii) if the source is being moved in a vehicle for the purposes of the hire or loan—the registration number of that vehicle;
 - (iii) the site, district or other locality at which the source is to be used while on hire;
 - (iv) the name of the person to whom the source is let on hire;
 - (v) the authorisation number for the radiation management licence held by the person to whom the source is let on hire authorising the possession of the source;
 - (vi) the name of the person who takes charge of the source at the commencement of the hire period;
 - (vii) the date on which the source is taken by the person who has taken charge of the source;
 - (viii) the date on which the source is returned to the premises controlled by the person supplying the source on hire; and
- (b) ensure, before the supply on hire, that the person to whom the source is let on hire holds a radiation management licence authorising the possession of the source; and
- (c) ensure that the source is, before its supply on hire, compliant with a provision of these regulations applying in respect of the source (including any relevant code applying to the source under these regulations); and
- (d) ensure that appropriate systems and processes are in place for the ongoing maintenance of the source during the term of the hire.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) A person who takes charge of a sealed radioactive source to which subregulation (1) applies must sign the register on the date on which they take charge of the source.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) When a source to which subregulation (1) applies is returned to the premises controlled by the person supplying the source on hire, the person returning it must sign the register on the date on which it is returned and indicate in the register—

- (a) details of any abnormal occurrence which had occurred while the person was in charge of the source, being an occurrence that—
 - (i) is indicative of some fault or defect in the source, its capsule, container or source control mechanism; and
 - (ii) may have damaged the source, its capsule, container or source control mechanism; and
- (b) details of any fault or defect the person observed in the source, source capsule, source container or source control mechanism.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (4) A person who takes a sealed radioactive source on hire for a period of 3 months or less must report any damage occurring to the source during the period of hire to the person who supplied the source for hire as soon as reasonably practicable after the damage occurs.

Maximum penalty: \$10 000.

Expiation fee: \$500.

Subdivision 3—Accounting for and storage and labelling of radioactive materials

62—Registered occupier of premises in which unsealed radioactive material is kept or handled to maintain register of unsealed radioactive materials

The registered occupier of premises in which an unsealed radioactive material is kept or handled must—

- (a) maintain a register of unsealed radioactive materials; and
- (b) within 24 hours after each unsealed radioactive material kept or handled at the premises is first taken onto the premises, enter in the register an entry containing—
 - (i) the radionuclide contained in the material; and
 - (ii) the activity or nominal activity; and
 - (iii) the date to which the activity refers; and
 - (iv) the name of the person in whose care the material has been placed; and
 - (v) the date upon which the material was first taken onto the premises.

Maximum penalty: \$10 000.

Expiation fee: \$500.

63—Person in possession of sealed radioactive source to maintain register of sealed radioactive sources

A person in possession of a sealed radioactive source (whether or not registered by the Minister under the Act) must—

- (a) maintain a register of sealed radioactive sources; and
- (b) within 24 hours of taking possession of a sealed radioactive source, enter in the register the following information in respect of the source:
 - (i) the name of the manufacturer of the source;
 - (ii) the manufacturer's model or type number for the source;
 - (iii) the serial number of the source;
 - (iv) the radionuclide enclosed in the source;
 - (v) if it is a non-fissile neutron source—the target element;
 - (vi) the activity or nominal activity of the radionuclide in the source;
 - (vii) the date to which the activity of the radionuclide in the source refers;

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- (viii) if the source is incorporated or mounted in an instrument or other equipment—sufficient information to identify the instrument or other equipment, including—
 - (A) its manufacturer; and
 - (B) its model; and
 - (C) its serial number; and
 - (D) its date of manufacture; and
 - (E) the place where it is located (in the case of an instrument or other equipment installed in a fixed position) or the location where it is usually stored (in the case of an instrument or other equipment not so installed);
- (ix) the name of the person in whose care the source has been placed;
- (x) the date on which the person took possession of the source.

Maximum penalty: \$10 000.

Expiation fee: \$500.

64—Storage of sealed radioactive sources and unsealed radioactive materials

- (1) If—
 - (a) a sealed radioactive source or an unsealed radioactive material that is not incorporated into an instrument or in other equipment is not being used or handled; or
 - (b) a sealed radioactive source or an unsealed radioactive material that is usually installed in a fixed position has been removed from that position; or
 - (c) a sealed radioactive source or an unsealed radioactive material has been incorporated into a portable or mobile instrument or portable or mobile equipment that is not likely to be used in the near future,the person in possession of the sealed radioactive source or the registered occupier of the premises in which the unsealed radioactive material is kept (as the case may be) must—
 - (d) store the source or material—
 - (i) in the case of a sealed radioactive source—in accordance with the Code of Practice for the Security of Radioactive Sources; or
 - (ii) in any other case, so that—
 - (A) the equivalent dose rate in any area accessible to members of the public and outside the place of storage is as low as is reasonably achievable and in no case exceeds 25 $\mu\text{Sv/h}$; and
 - (B) no person receives an effective dose exceeding the appropriate dose limit referred to in Part 5 Division 2; and

- (C) the place of storage is ventilated in such a way that the concentration of airborne radioactive materials within the place of storage will, for any period of time that the place of storage is occupied, be as low as is reasonably achievable; or
- (iii) in a manner approved by the Minister; and
- (e) take reasonable precautions to prevent unauthorised access to the source or material or unauthorised removal of the source or material from the place of storage; and
- (f) if it is reasonably foreseeable that, during a period of time, chemical, radiation or other action may weaken or rupture a container in which the source or material is stored so as to cause leakage from that container—provide suitable secondary containment adequate to contain the entire quantity of radioactive material.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) This regulation does not apply in relation to a sealed radioactive source in respect of which a relevant code applies.

65—Person in possession of sealed radioactive source etc to mark doors and entrances to areas where source or unsealed radioactive material kept

- (1) A person who is in possession of a sealed radioactive source or is the registered occupier of premises in which an unsealed radioactive material is kept, handled or stored must mark every door and every entrance to the area in which the source or material is kept, handled or stored with a sign that—
 - (a) complies with the requirements of AS 1319–1994 *Safety Signs for the Occupational Environment* (as in force from time to time) applying to warning signs; and
 - (b) if it bears words—bears the words "RADIATION AREA" or "STORE FOR RADIOACTIVE MATERIAL" or other words to that effect; and
 - (c) bears the name and telephone number of a person to contact in the event of any emergency arising within or emanating from that area; and
 - (d) bears the radiation symbol; and
 - (e) has a total surface area of not less than 4 500 mm²; and
 - (f) is clearly legible from a distance of 2 m.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) Subregulation (1) does not apply to a sealed radioactive source that is contained in a device in respect of which a relevant code applies.

66—Owner of sealed radioactive source etc to mark sources and vessels containing unsealed radioactive material

- (1) A person who is in possession of a sealed radioactive source or is the registered occupier of any premises in which an unsealed radioactive material is kept must mark each source and every vessel containing the material with a sign that—
- (a) bears the radiation symbol; and
 - (b) bears the word "RADIOACTIVE"; and
 - (c) contains the identity and activity of the radionuclide.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) A person need not mark a source or a vessel containing a radioactive material if by reason of the size of the source or vessel it is not reasonably practicable to do so.
- (3) If, pursuant to subregulation (2), a source or vessel is not marked in accordance with subregulation (1), the source or vessel must, at any time that the source or vessel is unattended or is placed into storage, be placed inside another vessel that is marked in accordance with subregulation (1).
- (4) Subregulation (1) does not apply to a sealed radioactive source that is contained in a device in respect of which a relevant code applies.

Subdivision 4—Disposal of radioactive material**67—Application of Subdivision**

This Subdivision does not apply to—

- (a) the disposal of radioactive material by the holder of radiation management licence in circumstances where the radiation management plan for the licence provides for the disposal of the radioactive material of the relevant kind and the disposal is undertaken in accordance with the radiation management plan; or
- (b) the discharge from a place other than a hospital or health service that occupies registered premises into a sewerage system of a radioactive material contained in excreta from a person who is or has been undergoing medical diagnosis or treatment with a radioactive material.

68—Prohibition on disposal of radioactive material without Minister's approval

A person must not dispose of a radioactive material without the prior approval of the Minister.

Maximum penalty: \$10 000.

Expiation fee: \$500.

69—Application for approval to dispose of unsealed radioactive material

- (1) An application for approval to dispose of unsealed radioactive material must be made by—
 - (a) in the case of a material kept or handled in registered premises—the occupier of the registered premises;
 - (b) in any other case—the owner of the material.
- (2) An application may relate to the disposal of 1 or more unsealed radioactive materials on 1 occasion or a proposal to dispose of more than 1 or a variety of unsealed radioactive materials on more than 1 occasion extending over a period of up to 12 months, or longer period as may be approved by the Minister, from the date of the approval.
- (3) An application must—
 - (a) be in writing; and
 - (b) specify the material or materials to be disposed of; and
 - (c) contain details of the material or materials to be disposed of including their chemical and physical form; and
 - (d) specify the maximum activities of the materials likely to be disposed of, and the arrangements to prevent the maximum activities from being exceeded; and
 - (e) contain details of the place or places where the material or materials will be disposed of; and
 - (f) contain the approximate date or dates when the material or materials will be disposed of; and
 - (g) contain details of the method of the proposed disposal including details of packaging, storage, segregation, labelling, monitoring and transport; and
 - (h) contain the name of any person or persons who it is proposed will handle the material or materials during the course of their disposal.

70—Application for approval to dispose of sealed radioactive source

- (1) An application for approval to dispose of a sealed radioactive source must be made by—
 - (a) in the case of a registered source—the registered owner of the source; or
 - (b) in any other case—the owner of the source.
- (2) An application may relate to the disposal of 1 or more sealed radioactive sources.
- (3) An application must—
 - (a) be in writing; and
 - (b) specify the source or sources to be disposed of; and
 - (c) contain details of the source or sources to be disposed of including their chemical and physical form and the activity of such source or sources; and

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- (d) contain details of the place or places where the source or sources will be disposed of; and
- (e) contain the approximate date or dates when the source or sources will be disposed of; and
- (f) contain details of the method of the proposed disposal including details of segregation, labelling, monitoring, and transport; and
- (g) contain details of any container or device in which the source is housed; and
- (h) contain the name of any person or persons who it is proposed will handle the source or sources during the course of their disposal.

71—Minister's power to require applicant to supply further information

Before the Minister determines an application for approval to dispose of a radioactive material—

- (a) the Minister may, by notice in writing, direct the applicant to supply the Minister with such further information as the Minister considers is necessary to enable the Minister to give full consideration to the application; and
- (b) the Minister must, if the Minister gives such a notice to the applicant, defer consideration of the application until the applicant has complied with the notice.

72—Matters to be taken into account by Minister in deciding application for approval

The Minister may grant or refuse an application for approval to dispose of an unsealed radioactive material or a sealed radioactive source and, in deciding whether to grant or refuse such an application, must have regard to the following matters:

- (a) the nature of the material or source;
- (b) the activity of the material or source;
- (c) whether the material or source may be safely disposed of;
- (d) whether the method of disposal proposed by the applicant is appropriate;
- (e) whether the place at which it is proposed to dispose of the material or source is appropriate;
- (f) whether the proposed disposal will adversely affect the health of any person, any class of person or members of the public generally;
- (g) whether the proposed disposal is appropriate having regard to the radiation protection principle and the principles of ecologically sustainable development.

73—Approval of application

- (1) If the Minister grants an approval to a proposal to dispose of an unsealed radioactive material or a sealed radioactive source, the Minister may do so unconditionally or subject to such conditions as the Minister considers ought to be imposed so that the disposal is appropriate having regard to the radiation protection principle and the principles of ecologically sustainable development.

- (2) An approval of the Minister may relate to the disposal of 1 or more sealed radioactive sources or to 1 or more unsealed radioactive materials on 1 occasion, or to the disposal of more than 1 or a variety of unsealed radioactive materials on more than 1 occasion extending over a period of up to 12 months, or longer period as may be approved by the Minister, from the date of the approval.

74—Minister to notify applicant of decision on application

- (1) If the Minister approves an application to dispose of an unsealed radioactive material or a sealed radioactive source, the Minister must give the applicant notice in writing of the granting of the approval and of the precise nature of any conditions to which the approval is subject.
- (2) If the Minister refuses an application for approval to dispose of an unsealed radioactive material or a sealed radioactive source, the Minister must give the applicant notice in writing stating—
- (a) that the application is refused; and
 - (b) the reasons for its refusal.

75—Minister's power to vary or impose conditions during currency of approval

- (1) The Minister may, at any time during the period for which an approval has been granted, by notice in writing given to the applicant—
- (a) vary any condition imposed on the approval; or
 - (b) impose a condition on an approval that had been granted unconditionally; or
 - (c) impose an additional condition on the approval.

- (2) An applicant must comply with a condition imposed on an approval.

Maximum penalty: \$10 000.

Expiation fee: \$500.

76—Right to apply for reconsideration of decision refusing application or imposing or varying condition

- (1) If the Minister—
- (a) refuses an application; or
 - (b) imposes a condition on an approval; or
 - (c) varies a condition to which an approval is subject,
- the applicant may, within 14 days of receiving notice of the refusal or imposition or variation of conditions, apply to the Minister for a reconsideration of the Minister's decision.
- (2) An application for reconsideration must be in writing and set out fully any representations the applicant wishes to make in support of the application.
- (3) The Minister must, within 28 days of receiving an application, reconsider the decision the subject of the application and inform the applicant of the Minister's further decision.

- (4) In reconsidering an application the Minister must have regard to the matters contained in regulation 72 and to any written representations made by the applicant.

Subdivision 5—Special requirements for sealed radioactive sources

77—Design and construction of capsules and source holders

- (1) A capsule must be designed and constructed so that any radioactive material within the capsule remains effectively enclosed within the capsule—
- (a) during all the conditions that are likely to arise when the source is being put to its normal use; and
 - (b) during all the conditions that are likely to arise if the source is involved in an accident of a kind that could arise when the source is being put to its normal use.
- (2) For the purposes of this regulation, a capsule complies with the requirements of subregulation (1) if it complies with—
- (a) in the case of a capsule for a source built before 1 January 2012—the requirements of International Standard *ISO 2919:1999 (E) Radiation protection – sealed radioactive sources – General requirements and classification* published by the International Organisation for Standardisation as in force from time to time; or
 - (b) in any other case—the requirements of the International Standard *ISO 2919:2012 (E) Radiological protection – sealed radioactive sources – General requirements and classification* published by the International Organisation for Standardisation as in force from time to time, as those requirements relate to the usage to which the sealed radioactive source is to be put, as expressed in Table 4 of that standard.
- (3) Subregulation (1) does not apply to a capsule that is contained in a device in respect of which a relevant code applies.

78—Sealed radioactive source to be used in device etc

If a sealed radioactive source is to be used in a device, article or thing, the radionuclide to be used in the source must be one—

- (a) the activity of which is not greater than is necessary for the satisfactory operation of the device, article or thing beyond its normal working life; and
- (b) the energy and type of radiation emitted from which are appropriate to the use for which the device, article or thing has been designed; and
- (c) the half life of which is as short as is practicable; and
- (d) is not an alpha emitter unless there are no other radionuclides readily available with the necessary properties.

79—Minister's power to require owner of sealed radioactive source to carry out tests

- (1) The Minister may, by notice in writing given to the owner of a sealed radioactive source, direct the owner to carry out in respect of the source such tests as the Minister directs.

- (2) A notice under subregulation (1) must—
- (a) identify the source to be tested; and
 - (b) specify the method to be used in carrying out the tests; and
 - (c) specify the time within which the tests must be carried out; and
 - (d) specify the frequency at which the tests are to be carried out; and
 - (e) specify the criteria to be used in deciding whether or not the source passes the tests.
- (3) A person who has been required by the Minister to carry out tests in accordance with this regulation must—
- (a) keep a register for the purpose of recording such tests; and
 - (b) within 14 days of carrying out tests in accordance with this regulation—make an entry in the register containing—
 - (i) sufficient details to identify the source tested; and
 - (ii) the date of the tests; and
 - (iii) the results of the tests; and
 - (c) if directed by the Minister to do so—submit the results of the test to the Minister.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (4) If a source fails to pass a test carried out under this regulation, the owner of the source must immediately—
- (a) cease to use the source; and
 - (b) prevent any other person from using the source; and
 - (c) notify the Minister that the source has failed to pass the test.

Maximum penalty: \$10 000.

Expiation fee: \$500.

80—Owner of sealed radioactive source to keep register of location if moved for use

- (1) If in order to use a sealed radioactive source it is necessary for that source to be moved away from the premises controlled by the owner of the source, the owner must, in respect of the source—
- (a) keep a separate register for the purpose of establishing, so far as is possible, the location of a sealed radioactive source at any given time; and
 - (b) in respect of the source, make entries in the register containing—
 - (i) registered number of the source; and
 - (ii) if the source is being moved in a vehicle—the vehicle's registration number under the *Motor Vehicles Act 1959*; and

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- (iii) the site, district or other locality at which the source is to be used; and
- (iv) if the source is to be used under a contract between the owner and another person—the name of the other person; and
- (v) the name of the person who has taken charge of the source; and
- (vi) the date on which the source was taken by the person who has taken charge of the source; and
- (vii) the date on which the source was returned to the premises controlled by the owner.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) A person who takes charge of a sealed radioactive source to which subregulation (1) applies must sign the register on the date on which they take charge of the source.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) When the source is returned to the premises controlled by the owner, the person returning it must sign the register on the date on which it is returned and indicate in the register—

- (a) details of any abnormal occurrence which had occurred while the person was in charge of the source, being an occurrence that—
 - (i) is indicative of some fault or defect in the source, its capsule, container or source control mechanism; and
 - (ii) may have damaged the source, its capsule, container or source control mechanism; and
- (b) details of any fault or defect the person observed in the source, source capsule, source container or source control mechanism.

Maximum penalty: \$10 000.

Expiation fee: \$500.

81—Duty of person administering human brachytherapy using sealed radioactive source

- (1) If a sealed radioactive source is used for the purpose of human brachytherapy, the person administering the brachytherapy must, if the patient undergoing treatment is in hospital, post on the patient's bed a sign containing—
- (a) the radiation symbol; and
 - (b) the number of sealed radioactive sources being used to treat the patient; and
 - (c) the type and activity of each source being used to treat the patient; and
 - (d) the equivalent dose rate 1m from the patient and the time the equivalent dose rate was measured; and
 - (e) the date on which the equivalent dose rate was measured; and

- (f) the name and signature of the person who measured the equivalent dose rate; and
- (g) the name and phone number of the person to be contacted in the event of a radiation incident involving any of the sealed radioactive sources being used to treat the patient.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) If a sign has been placed on a patient's bed under subregulation (1), a person must not interfere with or remove the sign unless the person is removing it to make an entry on it or until—
 - (a) the patient is discharged from the hospital; or
 - (b) all sealed radioactive sources are removed from the patient; or
 - (c) the equivalent dose rate 1m from the patient falls below 1 µSv/h.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) This regulation does not apply to the use of a sealed radioactive source for brachytherapy if that source is used in a remote controlled afterloading device.

Part 5—Radiation control—duties of employers and workers

Division 1—General provisions

82—Employer to prepare radiation incidents contingency plan

- (1) An employer must, in respect of every kind of operation carried out by the employer that involves the operation of ionising radiation apparatus or the use, handling, storage or disposal of any radioactive material—
 - (a) prepare a radiation incidents contingency plan that complies with this regulation; and
 - (b) if the employer is the holder of a radiation management licence and required to comply with the radiation management plan submitted under section 34 of the Act—incorporate the radiation incidents contingency plan in the employer's radiation management plan.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) An employer must ensure that a radiation incidents contingency plan is prepared before the commencement of the kind of operation to which it relates.
- (3) A radiation incidents contingency plan must—
 - (a) take into account every radiation incident that is reasonably foreseeable; and
 - (b) contain specific instructions as to how each incident is to be dealt with and brought under control, paying particular regard as to how control may be restored and the exposure of persons may be kept as low as reasonably achievable.

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Part 5—Radiation control—duties of employers and workers

Division 1—General provisions

- (4) If an employer's practice is such that a radiation incident could result in exposures of persons to high doses of ionising radiation or severe contamination of the environment by ionising radiation, the employer's radiation incidents contingency plan must make provision for—
- (a) obtaining appropriate medical care for persons exposed to ionising radiation as a result of the radiation incident; and
 - (b) identifying the roles and functions of relevant organisations that may be involved in dealing with the radiation incident; and
 - (c) the availability of personnel trained to deal with the situation resulting from the radiation incident; and
 - (d) the availability of appropriate emergency equipment; and
 - (e) arrangements with relevant first responders and rescue services; and
 - (f) the provision of information to the workers on the site affected by the radiation incident; and
 - (g) the provision of relevant information to the public; and
 - (h) appropriate counselling to any persons affected by the radiation incident; and
 - (i) the acquisition of information for assessing the cause of the radiation incident; and
 - (j) the classification of the radiation incident; and
 - (k) the reporting of the radiation incident to line management, the employer and the Minister; and
 - (l) the consideration of non-radiological consequences of the radiation incident in the context of the possible evacuation of the workplace affected by the incident; and
 - (m) the conditions, criteria and objectives to be met for declaring the radiation incident terminated.
- (5) An employer must provide the equipment and facilities (including any monitoring instrument, detector or alarm) that is necessary for the effective operation of the radiation incidents contingency plan, including the assessment of doses of ionising radiation received as a result of a radiation incident.
- Maximum penalty: \$10 000.
- Expiation fee: \$500.
- (6) If an employer discovers that a monitoring instrument, detector, or alarm that is required by subregulation (5) is not in correct working order, the employer must immediately replace it with a monitoring instrument, detector, or alarm that is in correct working order.
- Maximum penalty: \$10 000.
- Expiation fee: \$500.
- (7) The Minister may, by notice in writing given to an employer, require the employer to supply to the Minister a copy of a radiation incidents contingency plan that the employer has prepared under this regulation.

- (8) An employer must not fail to comply with a notice given by the Minister to the employer under subregulation (7).

Maximum penalty: \$10 000.

Expiation fee: \$500.

83—Employer to keep certain articles, devices and things in good working order

- (1) This regulation applies to—

- (a) ionising radiation apparatus; and
- (b) plant, structures and facilities containing a radiation source; and
- (c) source control mechanisms and other devices containing a sealed radioactive source; and
- (d) radiation monitoring equipment; and
- (e) radiation warning devices; and
- (f) protective clothing, fume cupboards, interlocks, signs, labels and any other radiation protection equipment or devices,

supplied by an employer for use during the course of the employer's profession, trade or occupation or for the use of any worker during the course of the worker's employment with the employer.

- (2) An employer must at all times keep or cause to be kept in good working order and condition any article, device or thing to which this regulation applies.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) If an employer discovers in an article, device or thing to which this regulation applies a fault or defect that is likely to increase the exposure to ionising radiation of any person, the employer must—

- (a) immediately inform all persons who—
 - (i) use, work with, inspect, test or handle the article, device or thing; or
 - (ii) are protected from exposure to ionising radiation by the article, device or thing; or
 - (iii) otherwise deal with the article, device or thing,of the nature of the fault or defect; and
- (b) cause the fault or defect to be remedied as soon as is reasonably practicable.

Maximum penalty: \$10 000.

Expiation fee: \$500.

84—Employer to give worker certain information

- (1) An employer must, before a worker employed by the employer first commences any duties as a worker—

- (a) inform the worker of the requirements of—

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Division 1—General provisions

- (i) the Act and these regulations, including applicable relevant codes, guidelines and standards; and
 - (ii) the employer's radiation incidents contingency plan required under regulation 82; and
 - (iii) if the employer is the holder of a radiation management licence and required to comply with the radiation management plan submitted under section 34 of the Act—the employer's radiation management plan; and
- (b) provide the worker with appropriate information and training so that the worker can discharge their duties safely and in accordance with the employer's radiation management plan (if any), the Act and these regulations.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) If there is a change in a radiation management plan referred to in subregulation (1)(a)(iii), the Act or these regulations, the employer must immediately inform a worker who is likely to be affected by any such change of the particulars of the change.

85—Employer to consult specified person if required by Minister

- (1) The Minister may give an employer a notice in writing requiring the employer to consult a person with approved qualifications and experience in aspects of radiation protection applicable to the activities undertaken by the employer.
- (2) An employer must comply with a notice given by the Minister to the employer under subregulation (1).

Maximum penalty: \$10 000.

Expiation fee: \$500.

86—Duties of worker

- (1) A worker must—
- (a) obey all notices displayed in accordance with these regulations; and
 - (b) not wilfully or recklessly do any act, or omit to do any act, the doing or omission of which is likely to result in a radiation incident; and
 - (c) report immediately to the worker's supervisor any fault or defect in any device, article or thing that the worker uses, inspects, tests, handles or otherwise deals with during the course of employment, being a fault or defect that is likely to result in a radiation incident; and
 - (d) comply with all reasonable measures to control and assess exposure to radiation in the workplace, including, by—
 - (i) if the employer is the holder of a radiation management licence and required to comply with the radiation management plan submitted under section 34 of the Act—following the radiation protection requirements set out in the employer's radiation management plan; and

- (ii) complying with the legitimate instructions of the employer in relation to radiation protection; and
- (iii) participating in training related to radiation protection; and
- (iv) making proper use of training undertaken by the worker to ensure their own health and safety and that of other persons; and
- (v) making proper use of protective and monitoring equipment provided by the employer.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) A worker who is or becomes aware of a matter that may compromise radiation protection must report the matter to their employer.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) A person must, upon becoming employed as a worker, provide the employer with, or assist the employer in obtaining, information about any occupational radiation exposure of the person that may have previously occurred.

Maximum penalty: \$10 000.

Expiation fee: \$500.

87—Display of radiation symbol

A person must not exhibit, display or otherwise use, or cause or permit another to exhibit, display or otherwise use, the radiation symbol except—

- (a) on a container used for the storage of a sealed radioactive source; or
- (b) on ionising radiation apparatus; or
- (c) on a sign erected in connection with—
 - (i) premises registered under section 25 of the Act; or
 - (ii) a place in which a radioactive material is stored; or
 - (iii) a place in which radioactive materials are stored in transit during the course of transport in accordance with the Act and these regulations; or
 - (iv) a place in which ionising radiation apparatus is installed, stored or used; or
- (d) as required by these regulations or any other law.

Maximum penalty: \$10 000.

Expiation fee: \$500.

Division 2—Radiation protection standards and limits**88—Employer to prevent exposures above certain dose limits**

- (1) Subject to this regulation, an employer must not—
- (a) expose, or cause, suffer or permit the exposure of, themselves or a worker employed by them to—
 - (i) an annual effective dose exceeding—
 - (A) 20 mSv averaged over a period of 5 consecutive years; or
 - (B) 50 mSv in any single year; or
 - (ii) an equivalent dose, during any calendar year, exceeding—
 - (A) 20 mSv in the lens of the eye; or
 - (B) 500 mSv in the skin, averaged over any 1 cm² of the skin, regardless of the total area exposed; or
 - (C) 500 mSv in the hands and feet; or
 - (b) expose, or cause, suffer or permit the exposure of, a member of the public to—
 - (i) an annual effective dose exceeding 1 mSv; or
 - (ii) an equivalent dose, in any calendar year, exceeding—
 - (A) 15 mSv in the lens of the eye; or
 - (B) 50 mSv in the skin, averaged over any 1 cm² of the skin, regardless of the total area exposed.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) Subject to this regulation, if—
- (a) an employer is pregnant; or
 - (b) a worker employed by an employer is pregnant and the worker has informed the employer of the pregnancy,
- the employer must not expose, or cause, suffer or permit the exposure of, the embryo or fetus *in utero* to an annual effective dose or equivalent dose exceeding the limit prescribed by subregulation (1)(b) in relation to a member of the public for the remainder of the pregnancy.
- (3) The obligations of an employer in relation to a worker under subregulations (1) and (2) apply only in relation to exposures occurring during the course of the worker's employment by the employer.
- (4) The Minister may, on application by an employer, if satisfied that exceptional circumstances exist, grant the employer permission to exceed the annual effective dose limit prescribed by subregulation (1)(a)(i).

- (5) The Minister may, on application by an employer, if satisfied that special circumstances exist—
- (a) grant the employer permission to exceed the annual effective dose limit prescribed by subregulation (1)(b)(i) subject to a condition that the employer does not expose, or cause, suffer or permit the exposure of, an embryo or fetus *in utero* referred to in subregulation (2) to an annual effective dose exceeding 1 mSv for the remainder of the pregnancy; or
 - (b) grant the employer permission to exceed the annual effective dose limit prescribed by subregulation (1)(b)(i) subject to a condition that the employer does not expose, or cause, suffer or permit the exposure of a member of the public to an annual effective dose exceeding 1 mSv averaged over a period of 5 consecutive years.
- (6) An employer must not contravene a condition imposed on a permission granted by the Minister to the employer under this regulation.
- Maximum penalty: \$10 000.
- Expiation fee: \$500.
- (7) In calculating doses for the purposes of this regulation, the following must be disregarded:
- (a) except if directed otherwise by the Minister—doses received by a person due to natural background radiation;
 - (b) except if directed otherwise by the Minister—doses received by a person as a result of an existing exposure situation;
 - (c) doses received by a person participating as a volunteer in medical research approved by the Minister under regulation 112;
 - (d) doses received by a person as a patient for the purposes of diagnosis or treatment;
 - (e) doses received by a person (other than a worker) who knowingly and willingly supports a patient undergoing an exposure for the purposes of diagnosis or treatment;
 - (f) doses received by a person as a result of an emergency exposure situation.

Division 3—Monitoring

89—Employer to provide for radiation monitoring and dose assessment

- (1) An employer must ensure that the time integrated exposure to ionising radiation for each worker who, under all foreseeable circumstances (including credible accident scenarios), will receive a radiation dose that exceeds 1 mSv per year, is measured, while the worker is at a work site, using an approved personal radiation monitoring device or approved method.
- Maximum penalty: \$10 000.
- Expiation fee: \$500.

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Division 3—Monitoring

- (2) If the type of ionising radiation emitted by a source of ionising radiation is of such a nature that there is no approved personal monitoring device for measuring a worker's exposure to that type of radiation, the employer must—
- (a) immediately advise the Minister accordingly and set out the arrangements the employer proposes to make to monitor the exposure to ionising radiation of workers employed by the employer; and
 - (b) make such arrangements as the Minister directs in writing for the monitoring of that type of radiation and for the calculation of personal exposures from that monitoring.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) A worker to whom a personal monitoring device is issued must wear, operate or use, as the case requires, the personal monitoring device—
- (a) in accordance with any instructions or approved instructions given to the worker; and
 - (b) whenever the worker is likely to be exposed to ionising radiation as a result of the worker's employment.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (4) An employer who has issued to a worker a personal monitoring device must, whenever it is necessary for the device to be examined or processed—
- (a) cause the device to be examined or processed, as the case requires; and
 - (b) cause the effective dose to be calculated and recorded,

by such persons, in such manner and at such times as are approved by the Minister.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (5) An employer who issues a personal monitoring device to a worker must not subsequently issue the same device to any other person unless the dose measured by the device has been assessed and recorded.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (6) A worker must not permit any other person to wear, operate or use a personal monitoring device issued to the worker during the period for which it is so issued.

Maximum penalty: \$10 000.

Expiation fee: \$500.

90—Minister's power to direct employer to place monitoring equipment on premises where worker employed

- (1) An employer must, if directed in writing by the Minister to do so, place on any premises at which a worker is employed by the employer, from time to time in accordance with that direction, approved equipment or devices for detecting and measuring ionising radiation for the purpose of monitoring the presence and amounts of ionising radiation on those premises.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) A person who has placed approved equipment or devices in accordance with a direction given under subregulation (1) must, whenever it is necessary for the approved equipment or devices to be examined, or for any film or other substance used to detect ionising radiation in the device to be processed in order to ascertain the amount of radiation present on the premises concerned, cause the approved equipment or devices to be examined, or that film or substance to be processed or changed, and the amount of ionising radiation detected to be measured, in such manner, by such persons and at such times as the Minister directs in writing.

Maximum penalty: \$10 000.

Expiation fee: \$500.

91—Minister's power to direct employer to place monitoring equipment on affected premises

- (1) If any premises are in proximity to any other premises at which an activity is carried on by an employer involving the use or handling of a source of ionising radiation and the Minister is of the opinion that the first-mentioned premises (the *affected premises*) are likely to be affected by ionising radiation emanating from the second-mentioned premises, the Minister may, by notice in writing—

- (a) direct the employer to place on the affected premises, from time to time, in accordance with such direction, approved equipment or devices for detecting and measuring ionising radiation for the purpose of monitoring the presence and amounts of ionising radiation on the affected premises; and
- (b) direct the owner of the affected premises to permit the employer to enter into and on the affected premises from time to time and to place on the affected premises in accordance with that direction approved equipment or devices for detecting and measuring ionising radiation for the purpose of monitoring the presence and amounts of ionising radiation on the affected premises.

- (2) A person who fails to comply with a direction made under subregulation (1) is guilty of an offence.

Maximum penalty: \$10 000.

Expiation fee: \$500.

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Division 3—Monitoring

- (3) A person who has placed approved equipment or devices in accordance with a direction given under subregulation (1) must, whenever it is necessary for the approved equipment or devices to be examined, or for any film or other substance used to detect ionising radiation in the device to be processed in order to ascertain the amount of radiation present on the premises concerned, cause the approved equipment or devices to be examined, or that film or substance to be processed or changed, and the amount of ionising radiation detected to be measured, in such manner, by such persons and at such times as the Minister directs in writing.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (4) The owner of any affected premises on which an employer has placed approved equipment or devices under this regulation must permit the employer to enter into and on the affected premises at all reasonable times so as to enable the employer to comply with subregulation (3).

Maximum penalty: \$10 000.

Expiation fee: \$500.

92—Minister's power to approve monitoring devices

- (1) The Minister may, by notice in the Gazette—
- (a) approve a specified monitoring device or kind or class of monitoring device to be an approved monitoring device for the purposes of this Division; or
 - (b) vary or revoke an approval under paragraph (a).
- (2) The Minister may, by notice in writing served on the person to whom the notice is addressed, give such directions and indicate such approvals as are referred to in this Division.

Division 4—Records, reports and investigations**93—Employer to keep personal radiation exposure record for each worker**

- (1) An employer must immediately establish a personal radiation exposure record in respect of each worker employed by the employer to whom a personal monitoring device is issued pursuant to regulation 89.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) An employer must maintain the record and keep it up to date at all times.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) An employer must—

- (a) immediately after establishing a personal exposure record, inform the worker that the record has been established and is being maintained; and

- (b) allow each worker to have access to the worker's own personal radiation exposure record.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (4) An employer must not destroy or dispose of a personal radiation exposure record except in accordance with an approval given by the Minister in accordance with regulation 127.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (5) A personal radiation exposure record must contain the following information:

- (a) the full name, designated sex at birth and date of birth of the worker;
- (b) the current home address of the worker and, if no longer employed by the employer, the worker's last known home address;
- (c) the date of commencement of employment (and if applicable the date of cessation) as a worker;
- (d) the kind of work performed by the worker;
- (e) details of the types of ionising radiation to which the worker may have been exposed as a result of their work, including information about radioactive material in unsealed form (if any) to which the worker may have been exposed;
- (f) the monitoring devices worn by the worker;
- (g) the results of monitoring the levels of radiation exposure of the worker in accordance with these regulations, and the conditions, if any, on the authority of the employer, indicating—
 - (i) the measurement periods of such monitoring, the result for each period, and the cumulative result since the beginning of the calendar year; and
 - (ii) the cumulative result for each calendar year; and
 - (iii) the cumulative result for previous calendar years and the calendar year being recorded.

94—Alteration of personal radiation exposure records

If an entry has been made in a personal radiation exposure record relating to the levels of radiation exposure received by a worker, a person must not change the entry unless the change—

- (a) is to correct an arithmetical error or transcription error; or
- (b) is made following a report signed by the employer and the worker stating that the entry to be changed does not accurately record the levels of radiation exposure received by the worker.

Maximum penalty: \$10 000.

Expiation fee: \$500.

95—Confidentiality of personal radiation exposure records

A person must not disclose to another person information contained in a personal radiation exposure record established under this Division unless—

- (a) to do so is a normal part of the person's duties as an employee; or
- (b) being an employer, the person does so in order to comply with these regulations; or
- (c) the disclosure is authorised by the worker to whom the record relates; or
- (d) the disclosure is approved by the Minister; or
- (e) the disclosure is made to ARPANSA for the purposes of the Australian National Dose Register; or
- (f) the disclosure is authorised by law; or
- (g) the disclosure is in the form of statistical or other information that could not reasonably be expected—
 - (i) to identify any particular worker; or
 - (ii) to relate to any particular worker.

Maximum penalty: \$10 000.

Expiation fee: \$500.

96—Employer to maintain records of certain measurements

- (1) An employer who receives a direction from the Minister under regulation 90 or 91 must maintain records of all measurements made by the employer in accordance with the direction.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) The records maintained under subregulation (1) must contain—
 - (a) the type of measurements made; and
 - (b) the times and places at which the measurements were made; and
 - (c) the results of the measurements; and
 - (d) details of the instruments and methods used to make the measurements; and
 - (e) details of the calibration of the radiation monitoring equipment used to make the measurements; and
 - (f) such additional information relating to the matters referred to in paragraphs (a) to (e) as the Minister may, by notice in writing given to the employer, direct the employer to make.
- (3) The Minister may, by notice in writing served on an employer, require the employer to record such additional information on the records as is referred to in subregulation (2)(f).

- (4) An employer must not destroy or dispose of any records kept under this regulation unless—
- (a) the records have been deposited with State Records or a repository approved by the Minister; or
 - (b) the Minister has approved the destruction or disposal of the records in accordance with regulation 127.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (5) An employer must, if directed in writing to do so by the Minister, supply the Minister with a copy of any record kept by the employer under this regulation.
- (6) An employer must, on the termination of the employer's practice, forward to the Minister any records relating to doses of radiation assessed to have been received by workers employed by the employer.

Maximum penalty: \$10 000.

Expiation fee: \$500.

97—Employer to review and investigate exposure of workers to certain ionising radiation doses

If workers or members of the public receive doses of ionising radiation—

- (a) exceeding dose constraints specified in an employer's radiation management plan; or
- (b) exceeding—
 - (i) unless subparagraph (ii) applies, the effective dose limits or equivalent dose limits prescribed by regulation 88(1) or (2); or
 - (ii) if the Minister has, under regulation 88, given an employer permission to exceed the annual effective dose limits prescribed by regulation 88(1) or (2)—the annual effective dose limits prescribed by the conditions of the Minister's permission,

the employer must—

- (c) investigate the exposure of the workers or members of the public to those doses of ionising radiation; and
- (d) if a radiation management plan applies—
 - (i) review the employer's radiation management plan and make such changes as may be necessary to prevent such exposures in the future; and
 - (ii) take action to implement any changes made to the employer's radiation management plan.

Maximum penalty: \$10 000.

Expiation fee: \$500.

Division 5—Notifiable radiation incidents**98—Interpretation**

In this Division—

notifiable radiation incident means a radiation incident declared by Schedule 5 to be a notifiable radiation incident.

99—Worker to report notifiable radiation incidents involving worker

- (1) A worker who is involved in a notifiable radiation incident during the course of their employment must, as soon as is reasonably practicable, report the incident to the worker's employer.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) For the purposes of this regulation, a report to the employer must—
- (a) be made in writing; and
 - (b) be signed by the worker; and
 - (c) contain—
 - (i) full details of the incident, indicating the time the source of ionising radiation was out of control, and the extent of any dispersal of any radioactive material; and
 - (ii) the time it was reported to the employer; and
 - (iii) the probable cause of the incident.
- (3) If more than 1 worker is involved in a notifiable radiation incident it is not necessary for each worker to report the incident to the employer, provided that—
- (a) 1 of the workers makes a report in accordance with this regulation; and
 - (b) each of the workers involved in the incident—
 - (i) has assisted in compiling the report; and
 - (ii) has signed the report.

100—Employer to investigate notifiable radiation incidents reported to employer

- (1) An employer must—
- (a) immediately investigate all notifiable radiation incidents reported to the employer under regulation 99; and
 - (b) maintain a register of notifiable radiation incidents reported to the employer.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) The investigation referred to in subregulation (1) must include the making of estimates of any doses that may have been received by any person.

- (3) An employer who receives a report of a notifiable radiation incident under regulation 99 must immediately enter in the register of radiation incidents—
- (a) the date, time and place of the incident; and
 - (b) the name of any worker involved in the incident; and
 - (c) full details of the incident, including the length of time the source of ionising radiation was out of control, the extent of any dispersal of any radioactive material, the estimate of doses received by any person, the time it was reported to the employer and the probable cause; and
 - (d) the result of any investigation undertaken in respect of the incident; and
 - (e) details of steps taken to minimise the possibility of any similar incident occurring in the future.

101—Employer to report notifiable radiation incidents to Minister

- (1) Subject to subregulation (3), an employer must report a notifiable radiation incident to the Minister as follows:
- (a) in the case of an incident of a kind referred to in Schedule 5 clause 1, 4 or 6—in writing within 7 days of the incident being reported to the employer;
 - (b) in the case of an incident of a kind referred to in Schedule 5 clause 2—
 - (i) orally as soon as reasonably practicable after the employer becomes aware of the incident; and
 - (ii) in writing within 7 days of the incident being reported to the employer;
 - (c) in the case of an incident of a kind referred to in Schedule 5 clause 3—
 - (i) if the radiation source is a security enhanced radiation source—
 - (A) orally as soon as reasonably practicable after the employer becomes aware of the incident (in any case not more than 24 hours after the employer becomes aware of the incident); and
 - (B) in writing within 7 days of the incident being reported to the employer;
 - (ii) in any other case—
 - (A) orally within 24 hours of the employer becoming aware of the incident; and
 - (B) in writing within 7 days of the incident being reported to the employer;
 - (d) in the case of an incident of a kind referred to in Schedule 5 clause 5, 7 or 8—
 - (i) orally as soon as reasonably practicable after the employer becomes aware of the incident (in any case not more than 24 hours after the employer becomes aware of the incident); and

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Division 5—Notifiable radiation incidents

- (ii) in writing within 7 days of the incident being reported to the employer.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) A report of a notifiable radiation incident under subregulation (1) must contain all the information entered by the employer in the register of radiation incidents in relation to the incident.
- (3) The holder of a radiation management licence authorising developmental testing operations involving or in relation to mining or mineral processing where a prescribed radioactive material is present or operations for or in relation to mining or mineral processing where a prescribed radioactive material is present or will be produced is not required to comply with subregulation (1) in relation to a notifiable radiation incident of a kind referred to in Schedule 5 clause 5 or 7.

Division 6—Medical examinations**102—Minister's power to direct employer or worker to undergo medical examination**

- (1) The Minister may, by notice in writing served on an employer, direct—
 - (a) the employer; or
 - (b) a worker employed by the employer,to undergo a medical examination to be conducted in accordance with the notice.
- (2) The notice must specify—
 - (a) the name of the person to be medically examined; and
 - (b) the purpose for which the medical examination is to be carried out; and
 - (c) the nature and content of the medical examination; and
 - (d) the period within which the medical examination is to be carried out.
- (3) An employer who is served with a notice under subregulation (1) that relates to a worker employed by the employer must—
 - (a) inform the worker that the employer has been served with such a notice; and
 - (b) request the worker to undergo the medical examination; and
 - (c) arrange for the worker to undergo the medical examination; and
 - (d) organise the worker's duties so that the worker is able to undergo the medical examination.Maximum penalty: \$10 000.
Expiation fee: \$500.
- (4) If an employer—
 - (a) informs a worker that the employer has been served with a notice under subregulation (1) that relates to that worker; and

- (b) requests the worker to undergo the medical examination as required by the notice; and
- (c) arranges for the worker to undergo the medical examination; and
- (d) organises the worker's duties so that the worker is able to undergo the medical examination,

the worker must undergo the medical examination as required by the notice.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (5) If an employer is directed by notice under subregulation (1) to undergo a medical examination, the employer must undergo the examination as required by the notice.

Maximum penalty: \$10 000.

Expiation fee: \$500.

103—Duties of health practitioner carrying out medical examinations

- (1) A health practitioner who carries out a medical examination for the purposes of regulation 102 must conduct the medical examination in accordance with the Minister's notice under that regulation.

- (2) If a health practitioner carries out a medical examination of—

- (a) an employer; or
- (b) a worker,

for the purposes of regulation 102, the health practitioner must prepare a report on their findings.

- (3) If a health practitioner carries out a medical examination of an employer for the purposes of regulation 102, the health practitioner must send a copy of the report to the employer and the Minister within 21 days after carrying out the medical examination.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (4) If a health practitioner carries out a medical examination of a worker for the purposes of regulation 102, the health practitioner must send a copy of the report to the worker, the worker's employer and the Minister within 21 days after carrying out the medical examination.

Maximum penalty: \$10 000.

Expiation fee: \$500.

104—Employer to retain and keep confidential reports etc relating to medical examinations

- (1) If a copy of a report prepared in accordance with this Division is received by an employer, the employer must retain it for as long as the person examined is employed by them.

Maximum penalty: \$10 000.

Expiation fee: \$500.

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- (2) An employer must not disclose the contents of such a report except to—

- (a) the person examined; or
- (b) an officer or employee of the Department.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) A worker who is not the person examined must not disclose the contents of such a report except to—

- (a) the person examined; or
- (b) an officer or employee of the Department.

Maximum penalty: \$10 000.

Expiation fee: \$500.

105—Costs of medical examination to be borne by specified employer

The cost of a medical examination conducted in accordance with this Division and of any report supplied on the examination must be borne by the employer if—

- (a) the employer is the person examined; or
- (b) the person examined is a worker employed by the employer.

Part 6—Irradiation of people for diagnostic, therapeutic or research purposes**Division 1—Interpretation****106—Interpretation**

In this Part—

Code for Radiation Protection in Medical Exposure means the *Code for Radiation Protection in Medical Exposure (2019)* published by ARPANSA (as in force from time to time);

exposure authorisation means an authorisation under Division 2 authorising the exposure of a person to ionising radiation for the purpose of diagnosis or treatment.

Division 2—Diagnostic and therapeutic purposes**107—Prohibition on exposures to ionising radiation without authorisation and justification**

A person must not expose themselves or any other person to ionising radiation for the purposes of diagnosis or treatment unless the exposure has first been justified and authorised in accordance with this Division.

Maximum penalty: \$10 000.

Expiation fee: \$500.

108—Justification and optimisation of medical, dental and chiropractic procedures

- (1) An employer must have protocols in place to ensure that a procedure involving the exposure of a person to ionising radiation for the purposes of diagnosis or treatment is not carried out unless the procedure has been justified by a health professional of a class who may, under regulation 109, authorise the procedure.

Maximum penalty: \$10 000.

- (2) An employer must have protocols in place to ensure that a procedure involving the exposure of a woman to ionising radiation for the purposes of diagnosis or treatment is not carried out unless—
- (a) in the case of a procedure that may result in a dose of ionising radiation of more than 1 mSv to an embryo or fetus—the health professional authorising the procedure has taken reasonable steps to determine the pregnancy status of the person; or
 - (b) in the case of a procedure involving the administration of a radiopharmaceutical that may result in a dose of ionising radiation of more than 1 mSv to a breast-fed child—the health professional authorising the procedure has taken reasonable steps to determine the breast-feeding status of the person.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) For the purposes of subregulation (1), in determining whether a procedure involving the exposure of a person to ionising radiation for the purposes of diagnosis or treatment is justified, the health professional authorising the procedure must determine the net benefit to the person from the procedure, taking into account—
- (a) the specific objectives of the procedure; and
 - (b) the characteristics of the person; and
 - (c) the total potential clinical benefits, including—
 - (i) direct health benefits to the person; and
 - (ii) if relevant—benefits to society in general; and
 - (d) the individual detriment to the person that may result from the procedure; and
 - (e) the efficacy, benefits and risks of available alternate techniques having the same objectives with less exposure, or no exposure, to ionising radiation; and
 - (f) any medical data and patient records relevant to the procedure; and
 - (g) if the person is a female of child-bearing capacity—the pregnancy status of the person; and
 - (h) if there is the potential for a dose of ionising radiation of more than 1 mSv to a breast-fed child from the administration of a radiopharmaceutical to a female person—the breast-feeding status of the person.

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Division 2—Diagnostic and therapeutic purposes

- (4) A health practitioner who is responsible for the overall conduct of a procedure involving the exposure of a person to ionising radiation for the purposes of diagnosis or treatment must ensure that the radiation dose to be received by the person as a result of the procedure is optimised.
- (5) The operator of radiation apparatus must ensure that, in delivering a procedure involving the exposure of a person to ionising radiation for the purposes of diagnosis or treatment—
 - (a) the person is not exposed unless—
 - (i) a health professional of a class who may, under regulation 109, authorise such a procedure has given an exposure authorisation; and
 - (ii) that exposure authorisation has not been revoked by a health professional of a class who may, under regulation 109, revoke the authorisation; and
 - (b) the established protocol for the procedure is followed in accordance with the radiation management plan of the employer of the operator (if the employer is the holder of a radiation management licence and required to comply with the radiation management plan submitted under section 34 of the Act); and
 - (c) the protection of the patient is optimised within the scope of the parameters under the control of the operator; and
 - (d) the exposure of persons other than the patient to ionising radiation from the procedure is minimised; and
 - (e) in the case of radiation therapy—
 - (i) a radiation treatment plan for the person has been approved by the health professional who authorised the radiation therapy; and
 - (ii) the dose of ionising radiation from the radiation therapy is delivered to the person in accordance with the person's radiation treatment plan; and
 - (iii) there is continuous oversight of the operating parameters of the radiation apparatus during the delivery of the dose of ionising radiation; and
 - (iv) the exposure to ionising radiation from the radiation apparatus is immediately terminated if there is any concern that the apparatus will not deliver the correct dose of ionising radiation to the person.

Maximum penalty: \$10 000.

Expiation fee: \$500.

109—Persons who may authorise exposure to ionising radiation or revoke or vary authorisation

- (1) An exposure to ionising radiation from a procedure of a class specified in the table below may be authorised by a health professional of a class specified opposite in the table in accordance with regulation 110.

Procedure	Health professional who may authorise
Dental plain radiography of the teeth	Dental hygienist Dental therapist Oral health therapist
Diagnostic radiography	Medical practitioner Specialist medical practitioner
Diagnostic radiography of the dento-maxillofacial region and of the hand and wrist	Dentist Specialist dentist
Nuclear medicine diagnosis	Medical practitioner Specialist medical practitioner
Nuclear medicine therapy	Specialist nuclear medicine physician Specialist paediatric nuclear medicine physician Specialist in nuclear medicine
Ophthalmic brachytherapy	Specialist ophthalmologist
Plain radiography	Nurse practitioner
Plain radiography of the lower limbs distal to the knee	Podiatrist
Plain radiography of the musculo-skeletal system to be interpreted by a radiologist	Physiotherapist
Plain radiography of the spine, pelvis or limbs distal to and including the shoulder or hip	Chiropractor
Radiation therapy	Specialist medical oncologist Specialist paediatric medical oncologist Specialist radiation oncologist
Radiation therapy of disorders of the skin	Specialist dermatologist
X-ray absorptiometry	Medical practitioner Specialist medical practitioner
X-ray absorptiometry for the purpose of total body composition analysis	Accredited exercise physiologist Physiotherapist

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Division 2—Diagnostic and therapeutic purposes

- (2) However, an exposure authorisation in relation to an exposure to ionising radiation from a procedure of a class specified in the table below may be revoked or varied by a health professional of a class specified opposite in the table in accordance with regulation 110.

Procedure	Health professional who may vary or revoke authorisation
Diagnostic radiography	Specialist radiologist
Nuclear medicine diagnosis	Specialist nuclear medicine physician

110—Exposure authorisation

- (1) Subject to this regulation, an exposure authorisation under this Division must be given in accordance with the provisions of the Code for Radiation Protection in Medical Exposure that are expressed in that code as mandatory provisions applying to a radiological medical practitioner in relation to the authorisation of radiological procedures.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) A person who gives an exposure authorisation must keep records in accordance with the provisions of the Code for Radiation Protection in Medical Exposure that are expressed in that code as mandatory provisions applying in relation to the keeping of records by a radiological medical practitioner for radiological procedures authorised by the radiological medical practitioner.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) If—

- (a) a person authorises an examination or treatment under this Division; and
- (b) the person certifies in writing that they reasonably consider that the health of the patient will be compromised if the examination or treatment that is the subject of the authorisation is not carried out,

the examination or treatment may be carried out without compliance with subregulation (1), provided that—

- (c) the authorisation is given before the examination or treatment begins; and
- (d) the person who gave the authorisation confirms the authorisation within 24 hours of giving the authorisation; and
- (e) the confirmation of the authorisation is—
 - (i) given in writing or by an approved electronic system; and
 - (ii) contains details of the examination or treatment that had been authorised; and
 - (iii) contains the clinical indications for the examination or treatment; and
 - (iv) is signed by the person who gave the authorisation.

111—Duties of persons carrying out a treatment

A person carrying out a treatment comprised of the exposure of a person to ionising radiation for the purposes of radiation therapy must comply with the provisions of the Code for Radiation Protection in Medical Exposure that are expressed in that code as mandatory provisions applying to an operator in relation to the carrying out of radiological procedures and the keeping of records in relation to the carrying out of radiological procedures.

Maximum penalty: \$10 000.

Expiation fee: \$500.

Division 3—Research purposes

112—Prohibition on *in vivo* research without prior notification to Minister

- (1) In this regulation—

Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes means the *Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes (2005)*, published by ARPANSA, as in force from time to time and as modified by subregulation (2);

in vivo research means research *in vivo*, the subject of which is a human being and during the course of which that human being is exposed to ionising radiation which they would not have received but for the research.

- (2) The Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes is modified as follows:
- (a) a reference to the relevant regulatory authority is to be taken to be a reference to the Minister;
 - (b) a reference to the responsible person for radioactive material, radiation apparatus, facility or premises is to be taken to be a reference to the owner of the radioactive material, radiation apparatus, facility or premises.
- (3) A person must not undertake *in vivo* research or expose themselves or any other person to ionising radiation in the course of *in vivo* research unless—
- (a) the research has been approved in accordance with the requirements of the Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes; and
 - (b) the person has first given the Minister written notice of the research containing details of the proposed research and of its approval as required by the Code.

Maximum penalty: \$10 000.

Expiation fee: \$500.

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Division 3—Research purposes

- (4) A person who undertakes *in vivo* research or exposes themselves or any other person to ionising radiation in the course of *in vivo* research must ensure that the research is conducted in accordance with the Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes.

Maximum penalty: \$10 000.

Expiation fee: \$500.

Part 7—Prohibition on provision of commercial cosmetic tanning services

113—Prohibition on provision of commercial cosmetic tanning services

- (1) A person must not, for fee or reward, or in the course of carrying on a business (whether or not for fee or reward), provide or offer to provide, a cosmetic tanning service to another person.
- Maximum penalty: \$10 000.
- Expiation fee: \$500.
- (2) If a person sells or otherwise disposes of a tanning unit that the person has used to provide a cosmetic tanning service for fee or reward, that person must—
- make a written record of the date on which the unit was sold or otherwise disposed of and the name and address of the new owner of the unit; and
 - retain the record for at least 2 years after the sale; and
 - keep the record readily available for inspection by an authorised officer; and
 - give the new owner a copy of any records relating to the maintenance and servicing of the unit undertaken in the 2 years preceding the sale or other disposal.

Maximum penalty: \$5 000.

Expiation fee: \$315.

- (3) In this regulation—

cosmetic tanning service means a service of tanning human skin for cosmetic purposes by use of a tanning unit;

tanning unit means electrically powered apparatus designed to produce tanning of human skin by exposure of the skin to ultraviolet radiation emitted by the apparatus;

ultraviolet radiation means radiation for which the wavelengths are within the range of 100 to 400 nanometres.

Part 8—Transport of Radioactive Materials

114—Interpretation

- (1) In this Part—

dangerous situation has the same meaning as in section 46 of the Act;

emergency services officer means—

- (a) an officer or employee of the South Australian Metropolitan Fire Service, the South Australian Country Fire Service or the South Australian State Emergency Service; or
- (b) an ambulance officer;

International Regulations means Schedule A of the Transport Code as modified by Schedule 8.

- (2) If an expression used in this Part is defined in the Transport Code, that expression has, unless the contrary intention appears, the same meaning as in the Transport Code.

115—Responsibilities of consignors and carriers

- (1) A consignor must, in relation to the consignment of radioactive material, comply with the requirements of the International Regulations specified in clause 2.8 of the Transport Code (other than paragraphs 311, 312, 313, 314 and 315 of the International Regulations).

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) A carrier must, in relation to the transport of radioactive material, comply with the requirements of the International Regulations specified in clause 2.9 of the Transport Code (other than paragraphs 311, 312, 313, 314 and 315 of the International Regulations).

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) A carrier must ensure that, at all times during the course of the carriage of packages of radioactive material in a freight container or in or on a vehicle, each package is stowed and secured in such a manner that—

- (a) the package will remain in position despite movements of starting, stopping, jolting or swaying to which the container or vehicle may be subject; and
- (b) the package is kept away from heavy articles or goods likely to cause damage to it in the ordinary course of transport or in the event of accident; and
- (c) if carried on a vehicle—the package does not project beyond the periphery of the vehicle.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (4) If a vehicle carrying radioactive material is involved in an incident resulting in a dangerous situation—

- (a) the consignor of the radioactive material must, as soon as practicable after being asked by an authorised officer or emergency services officer—

- (i) give the officer the information the officer requires about—

- (A) the properties of the radioactive materials being transported; and

- (B) safe methods of handling the radioactive materials; and

- (C) safe methods of containing and controlling the radioactive materials in a dangerous situation; and
- (ii) provide the equipment and other resources necessary—
 - (A) to control the dangerous situation; and
 - (B) to contain, control, recover and dispose of radioactive material that has leaked, spilled or accidentally escaped;
- (b) the carrier of the radioactive material must, as soon as practicable after being asked by an authorised officer or emergency services officer—
 - (i) give the officer the information the officer requires about the vehicle's construction, properties and equipment; and
 - (ii) provide the equipment and other resources necessary—
 - (A) to control the dangerous situation; and
 - (B) to recover the vehicle or its equipment.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (5) If the consignor and the carrier of radioactive material are asked to give the same information or provide the same resources for an incident referred to in subregulation (4), it is sufficient if the consignor or, as the case may be, the carrier, gives the information or provides the resources.
- (6) A consignor or carrier who employs or engages a person to perform a task involved in the transportation of radioactive material must ensure that—
 - (a) the person has received appropriate instruction and training to ensure that the person is at all times able to perform the task safely and in accordance with these regulations and the International Regulations; and
 - (b) the person is at all times appropriately supervised in performing the task to ensure that the person is able to perform the task safely and in accordance with these regulations and the International Regulations; and
 - (c) records of all safety training undertaken by the person are kept and made available to the person if requested.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (7) Without limiting subregulation (6), a consignor or carrier must ensure that a person employed or engaged by them to perform a task involved in the transportation of radioactive material—
 - (a) receives training designed to familiarise the person with the general provisions of the International Regulations; and
 - (b) receives training that includes—
 - (i) a description of the different categories of radioactive material; and
 - (ii) requirements relating to the labelling, marking, placarding and packaging and segregation requirements of the International Regulations; and

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- (iii) a description of the purpose and content of radioactive material transport documents; and
 - (iv) a description of available emergency response documents; and
 - (c) receives training specific to the radioactive material transport requirements that are applicable to the task that the person has been employed or engaged to perform; and
 - (d) receives safety training that—
 - (i) is commensurate with the risk of exposure in the event of the release of radioactive material; and
 - (ii) is relevant to the task that the person has been employed or engaged to perform,including—
 - (iii) training on methods and procedures for avoiding accidents (such as the proper use of package handling equipment and appropriate methods of stowage of radioactive material); and
 - (iv) training on available emergency response information and how to use it; and
 - (v) training on the dangers presented by the different categories of radioactive material and how to prevent exposure to such dangers (including, if appropriate, the use of personal protective clothing and equipment); and
 - (vi) training on the immediate procedures to be followed in the event of an unintentional release of radioactive material, including—
 - (A) any emergency response procedures for which the person is responsible; and
 - (B) any personal protection procedures.
 - (8) A consignor or carrier must ensure that a person employed or engaged by them to perform a task involved in the transportation of radioactive material has received the training referred to in subregulation (7) before the person commences to perform any such task and thereafter at intervals of 3 years (or at such other intervals as may be directed by the Minister).

Maximum penalty: \$10 000.

Expiation fee: \$500.
 - (9) A person must not manage, control or supervise a task involved in the transportation of radioactive material unless the person has received instruction and training to enable the person to manage, control or supervise (respectively) another person to perform the task safely and in accordance with these regulations and the International Regulations.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (10) For the purposes of this regulation, a task involved in the transportation of radioactive material includes the following:
- (a) the classifying of radioactive material to be transported;
 - (b) the packing or unpacking of radioactive material;
 - (c) the marking or labelling of radioactive material;
 - (d) the marking or placarding of packages of radioactive material;
 - (e) the consigning of radioactive material for transport;
 - (f) the loading or unloading of packages of radioactive material;
 - (g) the carrying or handling of radioactive material in transport;
 - (h) the preparation of transport documentation for radioactive material;
 - (i) the driving of vehicles transporting radioactive material;
 - (j) the maintenance of vehicles or equipment used in the transport of radioactive material;
 - (k) the acceptance or receiving of a consignment of radioactive material (as the consignee).

116—Responsibilities of drivers and storekeepers

- (1) If, while a package of radioactive material is being transported—
- (a) the package is lost, wrongfully interfered with or damaged; or
 - (b) radioactive material leaks from the package,

the driver of the vehicle being used to transport the package must—

- (c) forthwith report the matter to all relevant persons, giving details of the package and the circumstances of the loss, interference, damage or leak and such other details as are reasonably required by the relevant person to whom the report is being made; and
- (d) prevent, as far as practicable, access to the package by anyone other than a person authorised by a relevant person; and
- (e) obey any directions given by the Minister in respect of the package.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (2) If, while a package of radioactive material is being stored in the course of transit—
- (a) the package is lost, wrongfully interfered with or damaged; or
 - (b) radioactive material leaks from the package,

the person in charge of the place of storage of the package must—

- (c) forthwith report the matter to all relevant persons, giving details of the package and the circumstances of the loss, interference, damage, leak or accident and such other details as are reasonably required by the relevant person to whom the report is being made; and

- (d) prevent, as far as practicable, access to the package by anyone other than a person authorised by a relevant person; and
- (e) obey any directions given by the Minister in respect of the package.

Maximum penalty: \$10 000.

Expiation fee: \$500.

- (3) It is a defence to a charge of an offence against subregulation (1)(c) or (2)(c) to prove that—
 - (a) the defendant did not know, and had no reason to suspect, that the loss, interference, damage, leak or accident had occurred; or
 - (b) the defendant reported the matter as soon as practicable after it came to the defendant's knowledge or after the defendant suspected that it had occurred; or
 - (c) the defendant believed on reasonable grounds that the requisite report had been made.
- (4) For the purposes of this regulation, the following are relevant persons:
 - (a) the carrier of the package of radioactive material;
 - (b) the consignor of the package of radioactive material;
 - (c) the Minister.

117—Interference

- (1) A person must not, without the approval of a relevant person, interfere with—
 - (a) the contents of a consignment of radioactive material; or
 - (b) a label or marking required by the International Regulations in relation to a package of radioactive material; or
 - (c) a document relating to a consignment of radioactive material,except in the course of transporting the radioactive material in accordance with the Act and these regulations.

Maximum penalty: \$10 000.

Expiation fee: \$500.
- (2) For the purposes of this regulation, the following are *relevant persons*:
 - (a) the carrier of the package of radioactive material;
 - (b) the consignor of the package of radioactive material;
 - (c) the Minister.

Part 9—Enforcement

118—Civil penalties

For the purposes of section 66(3)(a) of the Act, the prescribed form of a notice to be served by the Minister is the form set out in Schedule 7.

119—Powers of authorised officers

For the purposes of section 69(5)(a) of the Act, the following classes of vehicle are prescribed:

- (a) a vehicle used in the course of—
 - (i) a business, operation or activity carried on in pursuance of an authorisation or accreditation; or
 - (ii) mining, prospecting, mineral processing or petroleum processing operations;
- (b) a vehicle that is, or has previously been, located at premises registered under the Act as premises in which unsealed radioactive materials are handled or kept;
- (c) a vehicle that is, or has been, used for the transport of radioactive material.

120—Warrants

- (1) The grounds of an application for a warrant must be verified by affidavit.
- (2) If an application for the issue of a warrant is made by telephone, the following provisions apply:
 - (a) the applicant must inform the magistrate of the applicant's name and identify themselves as an authorised officer and the magistrate, on receiving that information, is entitled to assume, without further inquiry, that the applicant is an authorised officer;
 - (b) the applicant must inform the magistrate of the grounds on which the issue of the warrant is sought and must undertake to make an affidavit verifying the facts relied on by the magistrate for the issue of the warrant;
 - (c) the applicant must, as soon as practicable after the issue of the warrant, forward to the magistrate an affidavit verifying the facts referred to in paragraph (b).

Part 10—Miscellaneous**121—Annual report**

For the purposes of section 17 of the Act, the following information is to be included in a report relating to the administration of the Act during a particular financial year:

- (a) an overview of the activities and operations of the Department;
- (b) a summary of authorisations issued during the year;
- (c) a summary of all radiation incidents investigated during the year;
- (d) a summary of prosecutions undertaken by the Department during the year.

122—Manner of Minister giving notices, directions

- (1) Notice by the Minister to a person under a designated provision of the Act must be given in writing and be served in accordance with section 94 of the Act.

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- (2) For the purposes of section 46(5)(b) of the Act, a direction may be given by notice in writing and be served in accordance with section 94 of the Act.
 - (3) For the purposes of section 48(1) of the Act, notice of the grant of a permit must be given by the Minister in writing and be served in accordance with section 94 of the Act.
 - (4) Subject to these regulations, the Minister may give any direction or approval that is required by these regulations by notice in writing served, in accordance with section 94 of the Act, on the person to whom the notice is addressed.
 - (5) In this regulation—
designated provision, of the Act, means—section 25(6), 26(6), 27(6), 35(3), 36(3), 42(9)(b)(ii), 46(5)(b), 47(2), 48(1), 54(4)(a), 54(7), 55(4)(a), 56(5)(a), 57(3)(a), 57(7), 58(5)(a), 59, 61(3)(a), 61(5), 61(9)(a), 73(3)(a), 73(4), 96(1), or 96(3) of the Act.

123—Manner of authorised officer giving notice

- (1) Notice given by an authorised officer to a person under a designated provision of the Act must be given in writing and be served in accordance with section 94 of the Act.
- (2) For the purposes of section 57(6), confirmation of an emergency reparation order must be given in writing and be served in accordance with section 94 of the Act.
- (3) In this regulation—
designated provision, of the Act, means—section 69(2), 71(1)(a) or 71(1)(b) of the Act.

124—Service

A notice or other document required or authorised by these regulations to be served on or given to the Minister or the Department may be served or given—

- (a) by sending it by registered post addressed to the Department at its postal address; or
- (b) by leaving it at the principal place of business of the Department with a person who is apparently—
 - (i) over 16 years of age; and
 - (ii) in the employment of the Department.

125—Default penalty on failure to pay annual fee

For the purposes of section 35(3) of the Act, the penalty for a failure to pay an annual fee is \$300 or 5% of the annual fee (whichever is higher) for each month (or part of a month) for which the default continues.

126—Interest on amounts recoverable by Minister under sections 56, 58, and 61

For the purposes of sections 56(5)(a), 58(5)(a) and 61(9)(a) of the Act, the prescribed rate of interest per year on an amount recoverable by the Minister but not paid within the period fixed by the Minister is 24% calculated in respect of each month (or part of a month) for which the amount remains unpaid.

127—Procedure for obtaining Minister's approval to destroy certain documents

- (1) A person seeking approval of the Minister to dispose of or destroy a document under regulation 93, 96 or 111 must apply to the Minister in writing.
- (2) The application must contain—
 - (a) details of the document to be disposed of and the proposed manner of disposal; and
 - (b) details of the document to be destroyed and the proposed manner of destruction; and
 - (c) the reasons for the disposal or destruction.
- (3) The Minister may approve the application if satisfied that the document is not required for the purposes of the Act or these regulations.

128—Release of information obtained in administration of Act—prescribed body

- (1) For the purposes of section 98(2)(l) of the Act, ARPANSA is a prescribed body.
- (2) The Minister, the Department or the Committee may release to ARPANSA information relating to radiation incidents or radiation exposure records.

129—Register of accreditations, authorisations, exemptions and permits

- (1) For the purposes of section 77(3)(b) of the Act, the register under section 77 of the Act must contain the following information in respect of each radiation management licence:
 - (a) the name and postal address of the licence holder;
 - (b) the date of first issue of the licence;
 - (c) the date of last renewal of the licence;
 - (d) the current expiry date of the licence;
 - (e) the conditions imposed on the licence;
 - (f) if the licence authorises developmental testing operations, mining or mineral processing or the preparation of a site for, or the construction, establishment, control, operation, management, decommissioning, disposal or abandonment of, a radiation facility—the location of the operations or facility (as the case requires).
- (2) For the purposes of section 77(3)(b) of the Act, the register under section 77 of the Act must contain the following information in respect of each radiation use licence:
 - (a) the name and postal address of the licence holder;
 - (b) the conditions imposed on the licence;
 - (c) the date the licence was first issued;
 - (d) the most recent date upon which the licence was renewed;
 - (e) the date the current licence expires.

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- (3) For the purposes of section 77(3)(b) of the Act, the register under section 77 of the Act must contain the following information in respect of each registered premises:
- (a) the name and postal address of the registration holder;
 - (b) the address of the registered premises;
 - (c) a description sufficient to identify the premises at that address so registered;
 - (d) the date the registration was first granted;
 - (e) the most recent date upon which the registration was renewed;
 - (f) the date the current registration expires;
 - (g) the conditions imposed upon the registration.
- (4) For the purposes of section 77(3)(b) of the Act, the register under section 77 of the Act must contain the following information in respect of each registered sealed radioactive source and each registered radiation apparatus:
- (a) the name and postal address of the registered owner;
 - (b) the make, model, and serial number of the apparatus and of the sealed radioactive source or the registrable device;
 - (c) in the case of a sealed radioactive source—the radionuclide involved;
 - (d) the conditions imposed upon the registration;
 - (e) the date the registration was first granted;
 - (f) the most recent date upon which the registration was renewed;
 - (g) the date the current registration expires.
- (5) For the purposes of section 77(3)(b) of the Act, the register under section 77 of the Act must contain the following information in respect of each accreditation issued under the Act:
- (a) the name and postal address of the holder of the accreditation;
 - (b) the business name and trading name (if applicable) under which the activities authorised by the accreditation are carried out;
 - (c) the date of first issue of the accreditation;
 - (d) the date of the most recent renewal of the accreditation;
 - (e) the date of expiry of the accreditation;
 - (f) the conditions of the accreditation.
- (6) For the purposes of section 77(3)(b) of the Act, the register under section 77 of the Act must contain the following information in respect of each exemption issued under section 76 of the Act:
- (a) in relation to an exemption granted exempting a specified person from compliance with specified provisions of the Act—
 - (i) the name and postal address of the specified person; and
 - (ii) the provisions of the Act in relation to which the exemption applies; and

- (iii) the date of first issue of the exemption; and
 - (iv) the expiry date of the exemption (if any); and
 - (v) the conditions imposed on the exemptions;
 - (b) in relation to an exemption granted in respect of a specified radiation source—
 - (i) the name and postal address of the person granted the exemption; and
 - (ii) details of the radiation source; and
 - (iii) the provisions of the Act in relation to which the exemption applies; and
 - (iv) the date of first issue of the exemption; and
 - (v) the expiry date of the exemption (if any); and
 - (vi) the conditions imposed on the exemptions;
 - (c) in relation to an exemption granted in respect of specified premises—
 - (i) the name and postal address of the person granted the exemption; and
 - (ii) the provisions of the Act in relation to which the exemption applies; and
 - (iii) the address of the specified premises; and
 - (iv) the type of premises; and
 - (v) the date of first issue of the exemption; and
 - (vi) the expiry date of the exemption (if any); and
 - (vii) the conditions imposed on the exemption;
 - (d) in relation to an exemption granted in respect of a specified class of person, radiation source or premises—
 - (i) the class of person, radiation source or premises to which the exemption applies; and
 - (ii) the provisions of the Act in relation to which the exemption applies; and
 - (iii) the date of commencement of the exemption; and
 - (iv) the expiry date of the exemption (if any); and
 - (v) the conditions imposed on the exemption.
- (7) For the purposes of section 77(3)(b) of the Act, the register under section 77 of the Act must contain the following information in respect of each permit issued under section 48 of the Act:
 - (a) the name and postal address of the person granted the permit;
 - (b) the date of first issue of the permit;
 - (c) the expiry date of the permit;

- (d) the conditions imposed on the permit.
- (8) For the purposes of section 77(6)(c) of the Act, the protection of the health or safety of an individual is a prescribed reason.

130—Notice of defence

For the purposes of section 87(1) of the Act, notice of an intention to rely on the general defence under Part 8 of the Act or any other defence under the Act is to be given by notice in writing in a form approved by the Minister with service in accordance with section 94 of the Act.

131—Statutory declarations

For the purposes of section 89 of the Act, the Environment Protection Authority is a prescribed authority.

132—Office for inspection of documents

For the purposes of section 98(10)(c) of the Act, a code, standard, specification, guideline or other document referred to or adopted by the regulations and a standard, specification, guideline or other document may be inspected during normal office hours at—

- (a) the office of the Environment Protection Authority at Level 2, 211 Victoria Square, Adelaide; or
- (b) any other office specified by the Minister by notice in the Gazette.

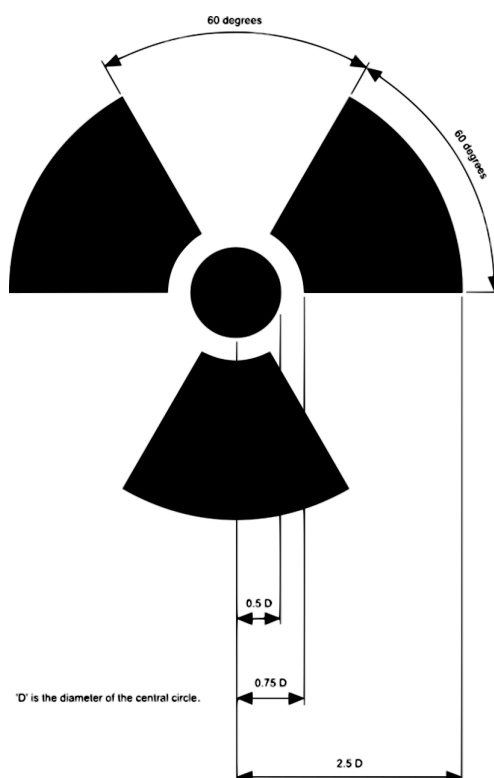
Schedule 1—Radiation symbol

The radiation symbol consists of the conventional 3 blade design shown below.

The symbol and background colours must comply with the requirements of *AS 1319–1994 Safety Signs for the Occupational Environment* as in force from time to time.

Radiation Protection and Control Regulations 2022

Schedule 1—Radiation symbol



Schedule 2—Classification of radionuclides into groups

GROUP 1

Pb-210	Po-210	Ra-223	Ra-226	Ra-228	Ac-227	Th-227	Th-228	Th-230
Pa-231	U-230	U-232	U-233	U-234	Np-237	Pu-238	Pu-239	Pu-240
Pu-241	Pu-242	Am-241	Am-243	Cm-242	Cm-243	Cm-244	Cm-245	Cm-246
Cf-249	Cf-250	Cf-252						

GROUP 2

Na-22	Cl-36	Ca-45	Sc-46	Mn-54	Co-56	Co-60	Ge-68	Sr-89
Sr-90	Y-91	Zr-95	Ru-106	Ag-110m	Cd-115m	In-114m	Sb-124	Sb-125
Te-127m	Te-129m	I-124	I-125	I-126	I-131	I-133	Cs-134	Cs-137
Ba-140	Ce-144	Eu-152	Bi-210	Eu-154	Tb-160	Tm-170	Hf-181	Ta-182
Ir-192	Tl-204	Bi-207	At-211	Pb-212	Ra-224	Ac-228	Pa-230	Th-234
U-236	Bk-249							

GROUP 3

Be-7	C-14	F-18	Na-24	Cl-38	Si-31	P-32	P-33	S-35
Ar-41	K-42	K-43	Ca-47	Sc-47	Sc-48	V-48	Cr-51	Mn-52
Mn-56	Fe-52	Fe-55	Fe-59	Co-57	Co-58	Ni-63	Ni-65	Cu-64
Zn-65	Zn-69m	Ga-67	Ga-72	As-73	As-74	As-76	As-77	Se-75
Br-82	Kr-85m	Kr-87	Rb-81	Rb-86	Sr-85	Sr-91	Y-87	Y-90
Y-92	Y-93	Zr-97	Nb-93m	Nb-95	Mo-99	Tc-96	Tc-97m	Tc-97

Tc-99	Ru-97	Ru-103	Ru-105	Rh-105	Pd-103	Pd-109	Ag-105	Ag-111
Cd-109	Cd-115	In-115m	Sn-113	Sn-125	Sb-122	Te-125m	Te-127	Te-129
Te-131m	Te-132	I-123	I-130	I-132	I-134	I-135	Xe-135	Cs-129
Cs-131	Cs-136	Ba-131	La-140	Ce-141	Ce-143	Pr-142	Pr-143	Nd-147
Nd-149	Pm-147	Pm-149	Sm-151	Sm-153	Eu-152m	Eu-155	Gd-153	Gd-159
Dy-165	Dy-166	Ho-166	Er-169	Er-171	Tm-171	Yb-175	Lu-177	W-181
W-185	W-187	Re-183	Re-186	Re-188	Os-185	Os-191	Os-193	Ir-190
Ir-194	Pt-191	Pt-193	Pt-197	Au-196	Au-198	Au-199	Hg-197	Hg-197m
Hg-203	Tl-200	Tl-201	Tl-202	Pb-203	Bi-206	Bi-212	Rn-220	Rn-222
Th-231	Pa-233	Np-239						
GROUP 4								
H-3	C-11	N-13	O-15	Ar-37	Co-58m	Ni-59	Ga-68	Zn-69
Ge-71	Kr-85	Sr-85m	Sr-87m	Rb-87	Y-91m	Zr-93	Nb-97	Tc-96m
Tc-99m	Rh-103m	In-113m	I-129	Xe-131m	Xe-133	Cs-134m	Cs-135	Sm-147
Re-187	Os-191m	Pt-193m	Pt-197m	Th-232	Th-Nat	U-235	U-238	U-Nat

Notes—

- 1 An alpha emitting radionuclide not listed in this Schedule will be taken to be in Group 1.
- 2 A radionuclide that is not an alpha emitter and is not listed in this Schedule will be taken to be in Group 2.

Schedule 3—Classification of premises

- 1 The classification of premises into Type A, Type B or Type C depends on—
 - (a) the groups to which the radionuclides kept or handled belong; and
 - (b) the maximum activities handled; and
 - (c) the type of operations performed on the premises.
- 2 If more than 1 radionuclide is handled, or if more than 1 type of operation is performed, then the highest classification found when all radionuclides and operations are separately considered is the classification of the premises (Type A = highest classification, Type C = lowest classification).
- 3 The maximum activity of a particular radionuclide handled on the premises should be multiplied by the modifying factors given in Table 1, and the results applied to Table 2 to determine the premises classification.

Table 1—Modifying factors

Type of operation	Factor
Simple storage (no operations)	0.01
Simple wet operations such as preparation of aliquots of stock solutions	0.1
Normal chemical operations involving few transfers	1
Complex chemical operations involving many transfers or complex apparatus	10

Type of operation	Factor
Simple dry operations (eg manipulation of powders)	10
Work with volatile radioactive compounds	10
Dry, dust producing operations such as grinding	100

Table 2—Premises classification

Group of radionuclide		Allowable activity range for:		
		TYPE C	TYPE B	TYPE A
1	less than 400 kBq	400 kBq-40MBq	more than 40 MBq	
2	less than 40 MBq	40 MBq-4 GBq	more than 4 GBq	
3	less than 4 GBq	4 GBq-400 GBq	more than 400 GBq	
4	less than 400 GBq	400 GBq-40 TBq	more than 40 TBq	

Schedule 4—Relevant codes for radiation sources**1—Interpretation**

A reference in this Schedule to a code of compliance or code of practice is a reference to the code as in force from time to time.

2—Relevant codes for radiation sources

- (1) For the purposes of these regulations, the codes specified in column 2 of the table below are relevant codes in relation to the radiation source or radiation material specified opposite in column 1 of the table.

Radiation source	Relevant code
Borehole logging involving sealed radioactive sources	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA <i>Code of practice for the safe use of sealed radioactive sources in borehole logging (1989)</i> published by ARPANSA
Borehole logging involving X-ray apparatus	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA <i>Code of Compliance for Apparatus used for Borehole Logging 2022</i> published by the Authority <i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority
Cabinet X-ray apparatus	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA <i>Revised statement on cabinet X-ray equipment for examination of letters, packages, baggage, freight and other articles for security, quality</i>

Radiation source	Relevant code
Chiropractic X-ray apparatus used for plain radiography	<i>control and other purposes (1987)</i> published by ARPANSA
	<i>Code of Compliance for Computed Tomography (CT) Based Cabinet X-ray Apparatus 2022</i> published by the Authority
	<i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority
	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA
	<i>Code of Practice for Radiation Protection in the Application of Ionizing Radiation by Chiropractors (2009)</i> published by ARPANSA
	<i>Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes (2005)</i> published by ARPANSA
	<i>Code of Compliance for Medical, Veterinary, and Chiropractic X-ray Apparatus 2022</i> published by the Authority
Dental X-ray apparatus used for plain, panoramic or cephalometric radiography or cone-beam computed tomography	<i>Code of Compliance for Facility Design and Shielding 2022</i> published by the Authority
	<i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority
	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA
	<i>Code of Practice and Safety Guide for Radiation Protection in Dentistry (2005)</i> published by ARPANSA
	<i>Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes (2005)</i> published by ARPANSA
	<i>Code of Compliance for Dental X-ray Apparatus Used for Plain, Panoramic & Cephalometric radiography and Cone-beam Computed Tomography 2022</i> published by the Authority
	<i>Code of Compliance for Facility Design and Shielding 2022</i> published by the Authority
Fixed radiation gauges	<i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority
	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA
	<i>Code of Practice and Safety Guide for Safe Use</i>

Radiation Protection and Control Regulations 2022
Schedule 4—Relevant codes for radiation sources

Radiation source	Relevant code
	<i>of Fixed Radiation Gauges (2007)</i> published by ARPANSA
Industrial radiography	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA <i>Code of Radiation Protection Requirements for Industrial Radiography (2018)</i> published by ARPANSA
Irradiators involving radiation generators and sealed radioactive sources of cobalt-60 or caesium-137	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA <i>Code of practice for the design and safe operation of non-medical irradiation facilities (1988)</i> published by ARPANSA
Medical X-ray apparatus used for plain radiography, mammography, computed tomography, fluoroscopy or absorptiometry	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA <i>Code for Radiation Protection in Medical Exposure (2019)</i> published by ARPANSA <i>Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes (2005)</i> published by ARPANSA <i>Code of Compliance for Medical, Veterinary, and Chiropractic X-ray Apparatus 2022</i> published by the Authority <i>Code of Compliance for Facility Design and Shielding 2022</i> published by the Authority <i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority
Medical radiation therapy involving radiation sources or radiation apparatus	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA <i>Code for Radiation Protection in Medical Exposure (2019)</i> published by ARPANSA <i>Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes (2005)</i> published by ARPANSA <i>Code of Compliance for Radiation Therapy Apparatus 2022</i> published by the Authority <i>Code of Compliance for Facility Design and Shielding 2022</i> published by the Authority <i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority
Moisture gauge containing a sealed radioactive source	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published

Radiation source	Relevant code
Radio frequency fields	<p>by ARPANSA</p> <p><i>Code of Practice for Portable Density/Moisture Gauges Containing Radioactive Sources (2004)</i> published by ARPANSA</p> <p><i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority</p>
	<p><i>Radiation Protection Standard for Limiting Exposure to Radiofrequency Fields—100kHz to 300 GHz (2021)</i> published by ARPANSA</p>
Sealed radioactive material	<p><i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA</p>
	<p><i>Code for the Safe Transport of Radioactive Material (2019)</i> published by ARPANSA</p>
	<p><i>Code for the Disposal of Radioactive Waste by the User (2018)</i> published by ARPANSA</p>
	<p><i>Code for Disposal Facilities for Solid Radioactive Waste (2018)</i> published by ARPANSA</p>
	<p><i>Code for Radiation Protection in Medical Exposure (2019)</i> published by ARPANSA</p>
	<p><i>Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes (2005)</i> published by ARPANSA</p>
	<p><i>Code of Practice for the Security of Radioactive Sources (2019)</i> published by ARPANSA</p>
Ultraviolet radiation	<p><i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority</p>
	<p><i>Radiation Protection Standard for Occupational Exposure to Ultraviolet Radiation (2006)</i> published by ARPANSA</p>
Unsealed radioactive material	<p><i>Code for Radiation Protection in Planned Exposure Situations (Rev.1) (2020)</i> published by ARPANSA</p>
	<p><i>Code for the Safe Transport of Radioactive Material (2019)</i> published by ARPANSA</p>
	<p><i>Code for the Disposal of Radioactive Waste by the User (2018)</i> published by ARPANSA</p>
	<p><i>Code for Disposal Facilities for Solid Radioactive Waste (2018)</i> published by ARPANSA</p>
	<p><i>Code for Radiation Protection in Medical Exposure (2019)</i> published by ARPANSA</p>
	<p><i>Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes</i></p>

Radiation Protection and Control Regulations 2022
Schedule 4—Relevant codes for radiation sources

Radiation source	Relevant code
	(2005) published by ARPANSA
	<i>Code of Practice and Safety Guide for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing</i> (2005) published by ARPANSA
	<i>Code of Compliance for Facility Design and Shielding 2022</i> published by the Authority
Veterinary X-ray apparatus used for computed tomography or dental, fluoroscopy, or plain radiography	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1)</i> (2020) published by ARPANSA
	<i>Code of Practice and Safety Guide for Radiation Protection in Veterinary Medicine</i> (2009) published by ARPANSA
	<i>Code of Compliance for Medical, Veterinary, and Chiropractic X-ray Apparatus 2022</i> published by the Authority
	<i>Code of Compliance for Facility Design and Shielding 2022</i> published by the Authority
	<i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority
Veterinary radiation therapy involving radiation sources or radiation apparatus	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1)</i> (2020) published by ARPANSA
	<i>Code of Practice and Safety Guide for Radiation Protection in Veterinary Medicine</i> (2009) published by ARPANSA
	<i>Code of Compliance for Radiation Therapy Apparatus 2022</i> published by the Authority
	<i>Code of Compliance for Facility Design and Shielding 2022</i> published by the Authority
	<i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority
Veterinary lasers	<i>Code of Practice and Safety Guide for Radiation Protection in Veterinary Medicine</i> (2009) published by ARPANSA
X-ray analysis apparatus	<i>Code for Radiation Protection in Planned Exposure Situations (Rev.1)</i> (2020) published by ARPANSA
	<i>Code of practice for protection against ionizing radiation emitted from X-ray analysis equipment</i> (1984) published by ARPANSA
	<i>Code of Compliance for Labelling and Signage of Ionising Radiation Sources 2022</i> published by the Authority
X-ray equipment, using enclosed shielding,	<i>Code for Radiation Protection in Planned</i>

Radiation source	Relevant code
producing a high dose rate, involving the examination, testing or sorting of articles, products or other materials, excluding cabinet X-ray and X-ray analysis apparatus	<i>Exposure Situations (Rev.1) (2020)</i> published by ARPANSA
	<i>Statement on enclosed X-ray equipment for special applications (1987)</i> published by ARPANSA
	<i>Code of Compliance for Computed Tomography Based Cabinet X-Ray Apparatus 2022</i> published by the Authority
(2) The <i>Code of Practice for Portable Density/Moisture Gauges Containing Radioactive Sources (2004)</i> published by ARPANSA is modified as follows:	
(a) a reference to a responsible person is to be taken to be a reference to an employer as defined in these regulations;	
(b) a reference to the Transport Code is to be taken to be a reference to the Transport Code as defined in these regulations.	
(3) The <i>Code of Practice for Radiation Protection in Veterinary Medicine (2009)</i> published by ARPANSA is modified as follows:	
(a) a reference to an operator is to be taken to be a reference to a worker as defined in these regulations;	
(b) a reference to a responsible person is to be taken to be a reference to an employer as defined in these regulations;	
(c) a reference to the Transport Code is to be taken to be a reference to the Transport Code as defined in these regulations.	
(4) The <i>Code of Practice: Safe Use of Fixed Radiation Gauges (2007)</i> published by ARPANSA is modified as follows:	
(a) a reference to a responsible person is to be taken to be a reference to an employer as defined in these regulations;	
(b) a reference to an employee is to be taken to be a reference to a worker as defined in these regulations;	
(c) a reference to the Transport Code is to be taken to be a reference to the Transport Code as defined in these regulations.	

Schedule 5—Notifiable radiation incidents

1—Medical exposures of patients to ionising radiation

- (1) The following incidents involving medical exposures of patients to ionising radiation are declared to be notifiable radiation incidents:
 - (a) a diagnostic procedure not authorised for a patient by a health professional specified in regulation 109;
 - (b) a diagnostic procedure that results in an observable acute radiation effect;
 - (c) a therapeutic treatment that is delivered—

- (i) to the wrong patient; or
 - (ii) to the wrong tissue; or
 - (iii) using the wrong radiopharmaceutical;
 - (d) the administration of a radioactive material for diagnostic purposes in which the activity of the material administered exceeds the activity prescribed in the hospital or practice standard protocol for that test by 50% or more;
 - (e) the administration of a radioactive material for therapeutic purposes in which the activity of the material administered differs from the activity prescribed by the health professional 15% or more;
 - (f) the administration of a therapeutic dose of ionising radiation from radiation apparatus or a sealed radioactive source in which the dose delivered to the patient differs from the total treatment dose prescribed by the health professional by more than 10%.
- (2) In subclause (1)(e) and (f), a reference to a health professional is a reference to the health professional who, under regulation 109, authorised the administration of the radioactive material or dose of ionising radiation from radiation apparatus or a sealed radioactive source, as the case may be.

2—Incidents that cause or may lead to radiation injuries or radiation doses exceeding the annual dose limits to workers or members of the public

An incident that causes or may lead to—

- (a) radiation injuries; or
- (b) a worker receiving a dose of ionising radiation exceeding the annual effective dose limits prescribed by regulation 88(1)(a)(i); or
- (c) a member of the public receiving a dose of ionising radiation exceeding the annual effective dose limits prescribed by regulation 88(1)(b)(i),

is declared to be a notifiable radiation incident.

3—Loss or theft of radioactive sources or radiation apparatus

An incident involving the loss or theft of a radiation source is declared to be a notifiable radiation incident.

4—Incidents relating to the transport of radioactive material

The following incidents are declared to be notifiable radiation incidents:

- (a) the damage or loss of a package containing radioactive material during freight handling or transport;
- (b) the transport of a package containing radioactive material without the document, placarding or labelling required by law.

5—Unintentional or unauthorised discharges of radioactive material into the environment

An incident involving the discharge of radioactive material into the environment that is unintentional or is not authorised by law is declared to be a notifiable radiation incident if—

- (a) in relation to a discharge of naturally occurring radioactive material—the discharge of the material will cause radiological exposure to the environment resulting, or potentially resulting, in 1 or more of the following:
 - (i) a change in current or future land use;
 - (ii) negative effects to flora or fauna; or
- (b) in any other case—the activity of any radionuclide in the material exceeds 100 times the exempt activity for that radionuclide.

6—Damage to, or malfunctioning of, radiation apparatus or sealed radioactive source

An incident involving damage to, or the malfunctioning of, radiation apparatus or a sealed radioactive source is declared to be a notifiable radiation incident if the damage or malfunctioning could in any way affect the radiation safety of the apparatus or source.

7—Contamination with, or dispersal of, radioactive material

An incident involving the contamination of a surface, substance or material by a radioactive material resulting from the spillage of more than 100 times the exempt activity of a radionuclide contained in the radioactive material is declared to be a notifiable radiation incident.

8—Out of control radiation sources

- (1) An incident involving a radiation source that is out of control is declared to be a notifiable radiation incident.
- (2) In this clause—
radiation source means a radiation source that is required to be registered under the Act.

Schedule 6—Exempt apparatus and sources

1—Exemption of apparatus

For the purposes of regulations 18(2)(c) and 21(1)(e), the following apparatus are specified:

- (a) television receivers;
- (b) visual display units;
- (c) cold cathode gas discharge tubes;
- (d) electron microscopes.

2—Exemption of radioactive sources

For the purposes of regulations 16(3)(b), 17(1), 19(2) and 20(a), the following radioactive sources are specified:

- (a) Americium-241 sealed sources of activity up to 40 kBq used in domestic smoke alarms meeting the requirements of AS3786:1993;
- (b) depleted uranium in solid massive form that is used for ballast in aircraft and boats and ships;
- (c) depleted uranium that is completely contained within an appropriate metallic sheath, and is used as radiation shielding in a container for radioactive sources that complies with the requirements of the *Code of Practice for the Safe Transport of Radioactive Material (2008) [RPS 2]* published by ARPANSA as in force from time to time;
- (d) a gaseous tritium light source that is solely used for safety purposes and includes less than 74 GBq of tritium;
- (e) a sealed radioactive source used for teaching the characteristics and properties of radiation or radiation sources and containing a radionuclide listed in column 1 of the table below, with an activity not greater than listed in column 2 of the table:

Radionuclide	Activity (kBq)
Cobalt-60	200
Strontium-90	80
Caesium-137	200
Radium-226	20
Americium-241	40

- (f) a geological sample that contains radioactive material, if the sample—
 - (i) emits radiation at a level not more than 5 micrograys an hour, measured at a distance of 10 cm from its surface; or
 - (ii) is being used as a sample in teaching or for display as a geological specimen;
- (g) an electron capture detector or similar device used in gas chromatography containing a nickel-63 sealed source with activity not more than 750 MBq, or tritium source with activity not more than 20 GBq;
- (h) lighting products that include krypton-85.

Schedule 7—Notice of right to elect to be prosecuted

Civil penalty for contravention—notice of right to elect to be prosecuted for contravention

Radiation Protection and Control Act 2021—section 66(3)(a)

File Number:

Issued by:

Date:

To: *[insert full name, company name (if applicable), postal address and any other information relevant for service of the notice]*

Notice to alleged offender

- 1 The Minister for Environment and Water is satisfied that you have committed an offence by contravening a provision of the *Radiation Protection and Control Act 2021* as follows:

Provision contravened:

Address or location of contravention:

Details of contravention:

- 2 The purpose of this notice is to advise you that you may, by written notice to the Minister, elect to be prosecuted for the contravention (see section 66(3) of the Act).

If you do not elect to be prosecuted, the Minister may commence civil penalty proceedings under section 66 of the Act for the purpose of obtaining an order from the Environment, Resources and Development Court that you pay an amount as a civil penalty in respect of the contravention.

In these civil proceedings, any contravention of the Act would only need to be proved on the balance of probabilities.

- 3 **If you elect to be prosecuted, rather than negotiating a civil penalty with the Minister or facing civil penalty proceedings, you must serve a written notice on the Minister within 21 days after service of this notice.**

- 4 The following matters are relevant to the provision of a notice of election to the Minister:

- (1) The notice must be addressed to the Minister as follows:
[insert relevant information]
- (2) You may choose to use the Attachment (below) or you may inform the Minister by your own letter, quoting your name and the File Number shown at the top of this document.
- (3) Section 66 of the Act may be found at www.legislation.sa.gov.au and additional information about the Act can be obtained from www.epa.sa.gov.au. Information concerning this notice can also be obtained by telephoning the Manager, Investigations Branch on *[insert telephone number]*.
- (4) If you do not, within 21 days after service of this notice, give notice to the Minister of election to be prosecuted, proceedings may be commenced to recover a civil penalty in the Environment, Resources and Development Court.

Attachment—Notice to Authority of election to be prosecuted

To: Minister for Environment and Water
[insert address]

File number of notice under section 66 of the *Radiation Protection and Control Act 2021*:
[insert file number]

*** Individual**

I elect to be prosecuted for the alleged contravention specified in the notice of the file number set out above.

Name in full:

Contact details:

Date:

Signed:

*** Company**

I, having authority to act for and on behalf of the company in this matter, give notice that the company elects to be prosecuted for the alleged contravention specified in the notice of the file number set out above.

Name of company:

Name in full of person with authority to act:

Contact details:

Date:

Signed:

**Strike out whichever is inapplicable*

Schedule 8—Modifications to Transport Code and International Regulations

1—Modifications to Transport Code

- (1) Clause 2.3—delete the clause and substitute:

2.3 The 'relevant transport regulations for dangerous goods' referred to in paragraphs 110, 506 and 507 of the International Regulations are the *Dangerous Substances (Dangerous Goods Transport) Regulations 2008* which are based on the 7th edition of the *Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG7)*.

- (2) Clause 2.4—delete "ADG7.6" and substitute:

Dangerous Substances (Dangerous Goods Transport) Regulations 2008

- (3) Schedule B, Table B1—delete the entry relating to South Australia and substitute:

South Australia Environment Protection Authority

Minister for
Environment and
Water

GPO Box 2607 Tel: (08) 8463 7826
 Adelaide SA Fax: (08) 8124 4671
 5001

Email:
 EPARadiationProtectionBranch@sa.gov.au

2—Modifications to International Regulations

- (1) Paragraph 557—delete the paragraph and substitute:

557. The *consignor* shall ensure that before a *package*, the design of which requires the approval of a *competent authority* first enters, or is moved within the State, copies of any certificate issued in relation to the design of that *package* by a *competent authority* for a place outside this State have been submitted to the *competent authority* for this State.

- (2) Paragraph 558—delete the first and second sentences of the paragraph and substitute:

The *consignor* shall, at least 7 days before a *shipment* of a kind listed in (a), (b) or (c) below first enters, or is moved within, the State, give the *competent authority* for the State notice of the *shipment*.

- (3) Paragraph 562—delete (a) and (b) and substitute:

(a) In accordance with section 5 of the *Radiation Protection and Control Act 2021*;

- (4) Paragraph 701—delete "any of the following methods listed below or by a combination thereof" and substitute:

such of the methods listed below, or by such combination of those methods, as is approved by the *competent authority* for the State in relation to a particular *package*

Schedule 9—Transitional provisions

1—Interpretation

In this Schedule—

radioactive substance has the same meaning as in the repealed regulations;

repealed regulations means the *Radiation Protection and Control (Ionising Radiation) Regulations 2015*.

2—Permission regarding dose limits

- (1) Permission of the Minister granted under regulation 13(2) of the repealed regulations and in force immediately before the commencement of these regulations continues to apply according to its terms as if it were permission granted under regulation 88(4) of these regulations.
- (2) Permission of the Minister granted under regulation 13(5) of the repealed regulations and in force immediately before the commencement of these regulations continues to apply according to its terms as if it were permission granted under regulation 88(5) of these regulations.

3—Minister's power to require further information

- (1) If a person has given notice under Part 4 of the repealed regulations before the commencement of these regulations in relation to ionising radiation apparatus, regulation 44 of these regulations applies in relation to that notice as if the notice was given under a provision of Part 4 Division 3 Subdivision 1 of these regulations.

- (2) If a person has given notice under Part 5 of the repealed regulations before the commencement of these regulations in relation to a radioactive substance, regulation 58 of these regulations applies in relation to that notice as if the notice was given under a provision of Part 4 Division 4 Subdivision 1 of these regulations.

4—Directions to place monitoring equipment on premises

- (1) A direction given to a person under regulation 18 of the repealed regulations that is in force immediately before the commencement of this clause will, on that commencement, be taken to be a direction given under regulation 90 of these regulations.
- (2) A direction given to a person under regulation 19 of the repealed regulations that is in force immediately before the commencement of this clause will, on that commencement, be taken to be a direction given under regulation 91 of these regulations.

5—Approved monitoring devices

An approval of a device under regulation 20 of the repealed regulations that is in force immediately before the commencement of this clause will, on that commencement, continue in force and be taken to be an approval given under regulation 92 of these regulations.

6—Approval to disclose personal radiation exposure records

An approval to disclose information under regulation 23(d) of the repealed regulations that is in force immediately before the commencement of this clause will, on that commencement, continue in force and be taken to be an approval given under regulation 95(d) of these regulations.

7—Directions to maintain records of certain measurements

A direction given to a person under regulation 25 of the repealed regulations that is in force immediately before the commencement of this clause will, on that commencement, be taken to be a direction given under regulation 96 of these regulations.

8—Approval to undertake research

An approval of the Minister under regulation 44 of the repealed regulations in force immediately before the commencement of this clause will, on that commencement, continue in force and be taken to be an approval given under regulation 112 of these regulations.

Editorial note—

As required by section 10AA(2) of the *Legislative Instruments Act 1978*, the Minister has certified that, in the Minister's opinion, it is necessary or appropriate that these regulations come into operation as set out in these regulations.

Made by the Governor

with the advice and consent of the Executive Council
on

No of 2022