

Protection from Harmful Radiation Regulation 2013

[2013-52]



New South Wales

Status Information

Currency of version

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Provisions in force

The provisions displayed in this version of the legislation have all commenced.

Notes—

- **Previously named**
Radiation Control Regulation 2013
- **Staged repeal status**
This legislation is currently due to be automatically repealed under the [Subordinate Legislation Act 1989](#) on 1 September 2024

Authorisation

This version of the legislation is compiled and maintained in a database of legislation by the Parliamentary Counsel's Office and published on the NSW legislation website, and is certified as the form of that legislation that is correct under section 45C of the [Interpretation Act 1987](#).

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Protection from Harmful Radiation Regulation 2013



New South Wales

Contents

Part 1 Preliminary 6

1 Name of regulation	6
2 Commencement	6
3 Definitions	6
3A Meaning of “employment”	8
4 Definition of “radioactive ore”	8
5 Definition of “radioactive substance”	9
6 Definition of “security enhanced source”	9
7 Regulation to be read in conjunction with the Work Health and Safety Act 2011	9

Part 2 Licensing and accreditation 9

8 Exemptions from radiation management licensing requirements for certain radioactive substances and ionising radiation apparatus	9
9 Exemptions from radiation user licensing requirements for certain radioactive substances and ionising radiation apparatus	10
10 Exemptions from radiation user licensing requirements for certain persons	10
11 Exemptions from radiation user licensing requirements for dental profession in relation to use of certain radiation apparatus	12
12 Consulting radiation experts	13
13 Radiation security assessors	13
14 Fees	14

Part 3 Security of radioactive sources	17
Division 1 Security plans	17
15 Security plans generally: additional matters and review	17
16 Source security plans: additional matters	18
17 Source transport security plans: additional matters	19
18 Amendments to security plans that do not require review	20
Division 2 Security measures	21
19 Definitions	21
20 Security measures for category 1 security enhanced sources	21
21 Security measures for category 2 security enhanced sources	21
22 Security measures for category 3 security enhanced sources	22
23 Duty to report breach of a security measure	22
Division 3 Identity checking	22
24 Prescribed security enhanced sources for identity checking	22
25 Identity checking	23
Part 4 Radiation safety and public health	23
Division 1 Radiation safety in the workplace	23
26 Duty to comply with dose limits	23
27 Duty to inform occupationally exposed persons	24
28 Radiation management plan	24
Division 2 Radiation monitoring	25
29 Personal monitoring devices	25
30 Personal radiation exposure record	26
31 Area monitoring devices	27
32 Maintenance of monitoring devices	28
Division 3 Voluntary exposure to radiation for scientific or research purposes	
.....	28
33 Voluntary exposure to radiation for scientific or research purposes	28

Division 4 Disposal and transport of radioactive substances and radiation apparatus

.....	28
34 Disposal of radiation apparatus.....	28
34A (Repealed).....	29
35 Records to be kept of disposal of regulated material	29
36 (Repealed)	29

Division 5 Radiation accidents

37 Certain occurrences are taken to be radiation accidents.....	29
38 Duty to report and investigate apparent radiation accidents	30
39 Record of accidents	31
40 Faults or defects	32

Division 6 Prohibitions to protect public health

41 Prohibition on commercial cosmetic tanning services	32
42 Duty to protect public from exposure to radiation.....	33

Division 7 Miscellaneous.....

43 Appointment of radiation safety officers and committees.....	33
44 Loss or theft of regulated material	34
45 Loss or theft of security enhanced source	34
46 Warning signs	34

Part 5 Miscellaneous

47 Exercise of certain functions by Secretary of Regional NSW	35
48, 49 (Repealed)	36
50 Destruction or disposal of records	36
51 Contamination of premises by radioactivity: section 21	36
52 Penalty notice offences	37
53 Forfeiture of property: sections 26 and 27	37
54 Operation of provisions about tanning salons after their repeal.....	37
55 Repeal	37

Schedule 1 Prescribed activity of a radioactive substance.....

Schedule 2 Classification of laboratories.....39

Schedule 3 Exemptions from licensing.....40

Schedule 4 Fees42

Schedule 5 Dose limits for exposure to ionising radiation47

Schedule 6 Prescribed warning sign.....49

Schedule 7 Penalty notice offences49

Schedule 8 (Repealed)52

Protection from Harmful Radiation Regulation 2013



New South Wales

Part 1 Preliminary

1 Name of regulation

This regulation is the *Protection from Harmful Radiation Regulation 2013*.

2 Commencement

This Regulation commences on 1 July 2013 and is required to be published on the NSW legislation website.

Note—

This Regulation replaces the *Radiation Control Regulation 2003*.

3 Definitions

(1) In this Regulation—

approved means approved for the time being by the Authority.

category 1 source means a sealed radioactive source (or an aggregation of sealed radioactive sources) that is a category 1 source (determined in accordance with Schedule B to the Code).

category 2 source means a sealed radioactive source (or an aggregation of sealed radioactive sources) that is a category 2 source (determined in accordance with Schedule B to the Code).

category 3 source means a sealed radioactive source (or an aggregation of sealed radioactive sources) that is a category 3 source (determined in accordance with Schedule B to the Code).

effective dose has the same meaning as it has in the 2007 ICRP recommendations.

equivalent dose has the same meaning as it has in the 2007 ICRP recommendations.

fee unit—see Part 2 of Schedule 4.

laboratory—see subclause (3).

medically exposed person means any of the following persons but does not include an occupationally exposed person—

- (a) a patient exposed to ionising radiation as part of the patient’s medical diagnosis or treatment,
- (b) a person who is voluntarily exposed to ionising radiation while supporting or caring for a patient exposed to ionising radiation as part of the patient’s medical diagnosis or treatment,
- (c) a person who is voluntarily exposed to ionising radiation for scientific or research purposes.

member of the public means a person who is not—

- (a) a medically exposed person, or
- (b) an occupationally exposed person.

occupationally exposed person means a person who is exposed to ionising or non-ionising radiation directly arising out of, or in the course of, the person’s employment.

radiation accident—see clause 37.

the 2007 ICRP recommendations means the document entitled *The 2007 Recommendations of the International Commission on Radiological Protection* and numbered ICRP Publication 103, published by the International Commission on Radiological Protection in March 2007, a copy of which is deposited in the offices of the Authority.

the Act means the [Radiation Control Act 1990](#).

the Code means the document entitled *Code of Practice for the Security of Radioactive Sources*, published by the Australian Radiation Protection and Nuclear Safety Agency, as in force from time to time.

threat level means a threat level set by the Australian Government’s National Threat Assessment Centre.

Note—

The Act and the [Interpretation Act 1987](#) contain definitions and other provisions that affect the interpretation and application of this Regulation.

- (2) In this Regulation, a reference to a radioactive substance of a particular Group is a reference to a radioactive substance referred to in the corresponding Group in Schedule 1.

- (3) In this Regulation, a reference to a **laboratory** that is classified as a low level laboratory, a medium level laboratory or a high level laboratory is a reference to a laboratory that is a single work area and that is classified as such under Schedule 2.
- (4) Notes included in this Regulation, other than in Schedules 5 and 6, do not form part of this Regulation.

3A Meaning of “employment”

- (1) In this Regulation, **employment** includes the following—
 - (a) engagement under a contract for services,
 - (b) self-employment,
 - (c) carrying on business in partnership.
- (2) In relation to engagement under a contract for services, a contractor is taken to be employed by the person engaging the contractor under the contract.
- (3) In relation to self-employment, a self-employed person is taken to be employed by themselves.
- (4) In relation to carrying on business in partnership, a partner is taken to be employed by each partner in the partnership.

4 Definition of “radioactive ore”

For the purposes of the definition of **radioactive ore** in section 4 (1) of the Act, the prescribed concentrations of uranium and thorium are—

- (a) in the case of an ore that contains uranium but not thorium, 0.02 per cent by weight of uranium, or
- (b) in the case of an ore that contains thorium but not uranium, 0.05 per cent by weight of thorium, or
- (c) in the case of an ore that contains both uranium and thorium, a percentage by weight of uranium and thorium such that the expression—

$$\frac{U}{0.02} + \frac{Th}{0.05}$$

is equal to, or greater than, one.

Where—

U represents the percentage by weight of uranium.

Th represents the percentage by weight of thorium.

5 Definition of “radioactive substance”

For the purposes of the definition of **radioactive substance** in section 4 (1) of the Act—

- (a) the prescribed amount is 100 becquerels per gram, and
- (b) a substance has the prescribed activity if the expression—

$$\frac{U}{0.02} + \frac{Th}{0.05}$$

is equal to, or greater than, one.
Where—

A1 represents the total activity, in kilobecquerels, of the Group 1 radionuclides contained in the substance.

A2 represents the total activity, in kilobecquerels, of the Group 2 radionuclides contained in the substance.

A3 represents the total activity, in kilobecquerels, of the Group 3 radionuclides contained in the substance.

A4 represents the total activity, in kilobecquerels, of the Group 4 radionuclides contained in the substance.

6 Definition of “security enhanced source”

A sealed radioactive source (or an aggregation of sealed radioactive sources) that is a category 1, 2 or 3 source is a **security enhanced source** for the purposes of the Act.

7 Regulation to be read in conjunction with the [Work Health and Safety Act 2011](#)

The obligations to ensure health and safety imposed by this Regulation are in addition to and do not derogate from the obligations of a person conducting a business or undertaking under the [Work Health and Safety Act 2011](#) or the regulations made under that Act.

Part 2 Licensing and accreditation

8 Exemptions from radiation management licensing requirements for certain radioactive substances and ionising radiation apparatus

A person is exempt from the requirement to hold a radiation management licence in relation to the following types of regulated material—

- (a) radioactive substances specified in Part 2 of Schedule 3,
- (b) ionising radiation apparatus specified in Part 4 of Schedule 3.
- (c) (Repealed)

9 Exemptions from radiation user licensing requirements for certain radioactive substances and ionising radiation apparatus

A person is exempt from the requirement to hold a radiation user licence in relation to the following types of regulated material—

- (a) radioactive substances specified in Part 1 or 2 of Schedule 3,
- (b) ionising radiation apparatus specified in Part 3 or 4 of Schedule 3.

10 Exemptions from radiation user licensing requirements for certain persons

- (1) The following persons are exempt from the requirement to hold a radiation user licence—
 - (a) a person who is a medical registrar at a hospital and is training in nuclear medicine, diagnostic radiology, radiation oncology, ophthalmology, dermatology, rheumatology or in a medical discipline that uses fluoroscopy,
 - (b) a person who is a student in medical radiation technology and is a trainee technologist in nuclear medicine, diagnostic radiology or radiation oncology,
 - (c) a person who is an assistant to an industrial radiographer,
 - (d) an undergraduate student in a university or other educational institution who is undertaking course work or research that involves the use of regulated material,
 - (e) a postgraduate student in a university or other educational institution who is undertaking research or higher studies that involve the use of regulated material,
 - (f) a person who is a registered nurse at a hospital or a medical officer at a hospital and is required to inject radiopharmaceuticals by that hospital (but only if a person who is the holder of a licence and who is able to inject the radiopharmaceuticals is not readily available at the hospital).
- (2) This exemption does not have effect with respect to a person unless the person—
 - (a) is the subject of an approval under this clause, and
 - (b) is complying with the conditions to which the approval is subject, and
 - (c) is subject to supervision in accordance with this clause.
- (3) A person who holds a radiation user licence may give approvals, for the purposes of

this clause, for activities authorised by the radiation user licence, but only if the conditions of the licence so allow.

- (4) An approval must—
- (a) be in writing, and
 - (b) specify the regulated material to which it relates, and
 - (c) set out any conditions to which it is subject, and
 - (d) identify each person, or class of persons, to whom it relates, and
 - (e) identify the person or persons, or class or classes of persons, who are to supervise each person, or class of persons, to whom it relates.
- (5) A person who gives an approval for the purposes of this clause must ensure that a copy of the approval—
- (a) is given to each person to whom it relates, or
 - (b) is conspicuously displayed at each place in which the regulated material to which the approval relates is proposed to be used.

Maximum penalty—50 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

- (6) A person who grants an approval must ensure that each person so approved is supervised by a qualified person as follows—
- (a) a person referred to in subclause (1) (a) must be subject to—
 - (i) immediate supervision at all times during the first 6 months of the person's training, and
 - (ii) general supervision after that period,
 - (b) a person referred to in subclause (1) (b) must be subject to—
 - (i) immediate supervision at all times while the person is using the regulated material to which the approval relates during clinical experience in the course of training, and
 - (ii) general supervision at all other times,
 - (c) a person referred to in subclause (1) (c) must be subject to immediate supervision at all times,
 - (d) a person referred to in subclause (1) (d) must be subject to—
 - (i) immediate supervision at all times while the person is using the regulated

material to which the approval relates in any clinical situation, and

(ii) general supervision at all other times,

(e) a person referred in subclause (1) (e) or (f) must be subject to general supervision at all times.

Maximum penalty—50 penalty units (in the case of a corporation) and 25 penalty units (in any other case).

(7) In this clause—

general supervision means supervision by a qualified person who oversees the person being supervised and ensures that the person follows safe radiation work practices in relation to the use of regulated material.

immediate supervision means supervision by a qualified person who is present at all times during, and is observing and directing, the use by the person being supervised of regulated material.

qualified person, in relation to supervision for a particular regulated material, means a person who is the holder of a radiation user licence that allows the person to provide supervision with respect to that regulated material.

11 Exemptions from radiation user licensing requirements for dental profession in relation to use of certain radiation apparatus

(1) A person is exempt from the requirement to hold a radiation user licence in relation to the use, for dental diagnostic purposes, of extra-oral x-ray apparatus used with intra-oral image receptors if the person—

(a) is a dentist, a dental therapist, a dental hygienist or an oral health therapist, and

(b) meets all applicable requirements of the Code of Practice and Safety Guide for Radiation Protection in Dentistry in relation to the use of the apparatus.

(2) A person is exempt from the requirement to hold a radiation user licence in relation to the use, for dental diagnostic purposes, of extra-oral x-ray apparatus used with intra-oral image receptors if the person—

(a) is a student within the meaning of the [Health Practitioner Regulation National Law \(NSW\)](#) in the dental profession, and

(b) is subject to—

(i) immediate supervision at all times while the person is using the apparatus during clinical experience in the course of training, and

(ii) general supervision at all other times.

(3) In this clause—

Code of Practice and Safety Guide for Radiation Protection in Dentistry

means the Code so entitled, published by the Chief Executive Officer of the Australian Radiation Protection and Nuclear Safety Agency, as in force from time to time.

general supervision means supervision by a qualified person who oversees the person being supervised and ensures that the person follows safe radiation work practices in relation to the use of the apparatus in respect of which the supervision is required.

immediate supervision means supervision by a qualified person who is present at all times during, and is observing and directing, the use by the person being supervised of the apparatus in respect of which the supervision is required.

qualified person means a person who satisfies the requirements of subclause (1) (a) and (b).

12 Consulting radiation experts

- (1) For the purposes of section 8 (1) of the Act, the following activities are prescribed as the activities of a consulting radiation expert—
- (a) advising on the design of premises, in relation to radiation safety requirements, on which regulated material is kept or used, for the purpose of certifying compliance with any conditions imposed on a radiation management licence,
 - (b) assessing plans for premises on which regulated material is kept or used, for the purpose of certifying compliance with any conditions imposed on a radiation management licence,
 - (c) assessing any regulated material and the premises at which it is kept or used, for the purpose of certifying compliance with any conditions imposed on a radiation management licence,
 - (d) assessing the integrity of any shielding of premises at which any regulated material is kept or used, for the purpose of certifying compliance with any conditions imposed on a radiation management licence.
- (2) Authorised officers are exempt from the provisions of section 8 (1) of the Act.

13 Radiation security assessors

For the purposes of section 8 (2) of the Act, the following activities are prescribed as the activities of a radiation security assessor—

- (a) reviewing security plans or amended security plans to assess whether the plans are made or amended in accordance with section 14 of the Act,

- (b) endorsing on security plans that the plan, or plan as amended, satisfies the requirements of section 14 of the Act.

14 Fees

- (1) The fees for the purposes of the Act are set out in Schedule 4.
- (2) The Authority may waive the whole or such part of the fees as the Authority may in a particular case think appropriate.
- (3) Where a radiation user licence relates to the use of 2 or more categories of regulated material, the applicable fee is the fee for the category that attracts the highest fee amount.
- (4) For the purposes of Schedule 4—

Group A regulated material (for the purposes of determining fees for radiation management licences) means an ionising radiation apparatus used or intended to be used for any veterinary diagnostic or dental diagnostic purpose.

Group B regulated material (for the purposes of determining fees for radiation management licences) means—

- (a) an ionising radiation apparatus used or intended to be used for any medical diagnostic purpose, or
- (b) an ionising radiation apparatus used or intended to be used for radiotherapy, or
- (c) a sealed source device that contains a source that is a category 4 or 5 source (as determined in accordance with Schedule B to the Code), or
- (d) a sealed radioactive source (or an aggregation of sealed radioactive sources) that—
 - (i) is not contained in a device, and
 - (ii) is a category 4 or 5 source (as determined in accordance with Schedule B to the Code), and
 - (iii) is kept or used within premises, or
- (e) a radioactive substance or substances (not in the form of a sealed radioactive source) kept or used within premises that are a single work area and are classified as low level laboratories or medium level laboratories, or
- (f) a radiation apparatus used for non-medical analytical or educational purposes, or
- (g) a portable x-ray fluorescence XRF radiation apparatus used for analysis, or
- (h) a radiation apparatus used for the detection of concealed items.

Group C regulated material (for the purposes of determining fees for radiation management licences) means—

- (a) a sealed source device that contains a source that is a category 1, 2 or 3 source, or
- (b) a sealed radioactive source (or an aggregation of sealed radioactive sources) that—
 - (i) is not contained in a device, and
 - (ii) that is a category 1 source (as determined in accordance with Schedule B to the Code), and
 - (iii) that has a D-value Activity Level (as determined in accordance with Table B.2 of Schedule B to the Code) of 1000 or less, and
 - (iv) that is kept or used within premises, or
- (c) a sealed radioactive source (or an aggregation of sealed radioactive sources)—
 - (i) that is not contained in a device, and
 - (ii) that is a category 2 or 3 source (as determined in accordance with Schedule B to the Code), and
 - (iii) that is kept or used within premises, or
- (d) a radioactive substance or substances, not in the form of a sealed radioactive source, kept or used within premises that are a single work area and that are classified as high level laboratories, or
- (e) a radiation apparatus used for industrial radiography, or
- (f) a portable enclosed industrial radiation apparatus, or
- (g) any other radiation apparatus used for any other purpose that is not otherwise specified in this definition or the definition of **Group A regulated material**, **Group B regulated material** or **Group D regulated material**.

Group D regulated material (for the purposes of determining fees for radiation management licences) means—

- (a) a cyclotron, or
- (b) a sealed radioactive source (or an aggregation of sealed radioactive sources)—
 - (i) that is not contained in a device, and
 - (ii) that is a category 1 source, and

(iii) that has a D-value Activity Level (as determined in accordance with Table B.2 of Schedule B to the Code) greater than 1000, and

(iv) that is kept or used within premises.

Group 1 regulated material (for the purposes of determining fees for radiation user licences) means—

- (a) a radiation apparatus (except computed tomography apparatus) used for dental diagnostic radiography or veterinary diagnostic radiography,
- (b) a radiation apparatus (except computed tomography apparatus) used for bone mineral analysis for medical diagnostic purposes,
- (c) a radioactive substance used for veterinary purposes,
- (d) a radiation apparatus or radioactive substance used for non-medical analytical or educational purposes,
- (e) a portable x-ray fluorescence (XRF) radiation apparatus used for analysis,
- (f) a radioactive substance used in a portable x-ray fluorescence (XRF) analyser,
- (g) a radiation apparatus or radioactive substance used for auditing or storage,
- (h) a radiation apparatus used for detection of concealed items,
- (i) a radioactive substance used for packaging for transport.

Group 2 regulated material (for the purposes of determining fees for radiation user licences) means—

- (a) a radiation apparatus or radioactive substance used for quality assurance purposes,
- (b) a radiation apparatus used for industrial fluoroscopy,
- (c) a portable enclosed industrial radiation apparatus,
- (d) a radioactive substance used for industrial gauging, maintaining a radioactive substances store or moisture and density determination,
- (e) a computed tomography apparatus used for dental diagnostic purposes,
- (f) a radiation apparatus or radioactive substance used for scientific or research purposes,
- (g) a radioactive substance used for tracer studies (except studies on humans).

Group 3 regulated material (for the purposes of determining fees for radiation user

licences) means—

- (a) a radiation apparatus used for radiation oncology, diagnostic radiology, radiation therapy, medical diagnostic radiography, dermatology, nuclear medicine technology, chiropractic radiography, medical fluoroscopy, radiation oncology physics or production of radionuclides,
- (b) a radioactive substance used for radiation oncology, nuclear medicine, radiation therapy, nuclear medicine technology, radiation oncology, ophthalmology, in-vitro medical diagnosis or radiopharmacy,
- (c) a radiation apparatus used for industrial radiography, borehole logging or installing or servicing radiation apparatus,
- (d) a radioactive substance used for industrial radiography, borehole logging, or installing or servicing devices containing a radioactive substance,
- (e) a radioactive apparatus or substance used for any other purpose not otherwise specified in this definition or the definition of Group 1 regulated material or Group 2 regulated material.

Part 3 Security of radioactive sources

Division 1 Security plans

15 Security plans generally: additional matters and review

- (1) A security plan must deal with the following matters in addition to those specified in the Act—
 - (a) how it has been determined that the sealed radioactive source is a security enhanced source for the purposes of the Act,
 - (b) how the plan has been developed, with particular regard to—
 - (i) a description of the source, the nature of any dealings with the source, the environment in which those dealings occur and existing security measures, and
 - (ii) identification of any credible threats to the source in relation to any such dealings and the likelihood and consequence of the threats eventuating, and
 - (iii) an assessment of the effectiveness of existing security measures in achieving compliance with the prescribed security measures for the source (having regard to any credible threats to the source), and
 - (iv) identification of any further action required to achieve compliance with the prescribed security measures for the source,

- (c) how compliance with the prescribed security measures for the source is to be (or is being) achieved,
 - (d) a description of the source (or the source being transported in the case of a source transport security plan) including, but not limited to—
 - (i) the isotope, and
 - (ii) the activity and the date of measurement of that activity, and
 - (iii) the serial number, and
 - (iv) the physical and chemical form,
 - (e) a description of the allocation of responsibilities for security to persons (including how those persons are competent, qualified and authorised to carry out their responsibilities),
 - (f) a description of any specific risks to the security of the source (such as, for example, theft, sabotage or mechanical or electronic failure of a physical security measure),
 - (g) a description of the physical security measures (being tangible barriers intended to deter and delay unauthorised access to a radioactive source) that will be used to ensure compliance with the prescribed security measures for the source,
 - (h) arrangements for review and revision of the plan, including the time between reviews.
- (2) Each person responsible for a security enhanced source must ensure that the time period between reviews of a security plan in respect of the source is no more than 12 months.

16 Source security plans: additional matters

- (1) A source security plan must deal with the following matters in addition to those specified in the Act—
- (a) a description of the radiation practice for which the security enhanced source is used,
 - (b) the category of the source (as determined in accordance with Schedule B to the Code),
 - (c) the specific location of the source in the building or facility where it is used or stored,
 - (d) a plan of the building or facility in which the source is used or stored,

- (e) a description of any surveillance or monitoring measures implemented to ensure compliance with the prescribed security measures for the sources (such as, for example, CCTV, personal surveillance or security patrols),
- (f) a description of the administrative and procedural measures that are to be used to ensure compliance with the prescribed security measures for the source, including (but not limited to)—
 - (i) access controls (including key controls), and
 - (ii) any identification and security checking carried out in accordance with the Act, and
 - (iii) inventories and records related to the management of sources, and
 - (iv) information security, and
 - (v) procedures to be followed before, during and after a technical service, and
 - (vi) contingency and security response arrangements, including notification of security breaches, and
 - (vii) security education and awareness, and
 - (viii) the action to be taken in the event of a change in the threat level.
- (2) In this clause, **radiation practice** means practice within the meaning of the *National Directory for Radiation Protection*, published by the Australian Radiation Protection and Nuclear Safety Agency, as in force from time to time.

17 Source transport security plans: additional matters

- (1) A source transport security plan must also deal with the following matters in addition to those specified in the Act—
 - (a) the purposes or reasons for which the source is being transported,
 - (b) a description of the conveyance in which the source will be transported and the arrangements for securing the shipment during transfer between different conveyances or during other stops en route,
 - (c) the name, address and business and after hours contact details for the consignor, consignee, carrier and, where used, guard or police services,
 - (d) a description of the administrative and procedural security measures that are to be used to meet the security outcomes relevant to the source as prescribed by this Regulation, including (but not limited to)—
 - (i) contact details for local police and the Authority and arrangements for

- notifying local police or the Authority, or both, depending on the issue,
- (ii) contingency and emergency procedures for vehicle accidents or breakdown (including, for category 1 sources, a planned principal route and an alternative route),
 - (iii) security response arrangements, including notification of any security breach to local emergency services (police, fire and ambulance) and the Authority as appropriate,
 - (iv) security briefings for persons involved in transporting the source, including the nature of any threats, the threat level and contingency and security response arrangements,
 - (v) any identification and security checking carried out in accordance with the Act,
 - (vi) information security,
 - (vii) the means of communication between persons involved in transporting the source,
 - (viii) actions to be taken in the event of a change in the threat level.
- (2) For the purposes of section 14 (6) (b) of the Act, a person responsible for a security enhanced source must ensure that any source transport security plan in respect of the source is provided to the Authority—
- (a) in the case of a category 1 source—at least 7 days prior to transportation of the source, and
 - (b) in the case of a category 2 or 3 source—at least 7 days prior to transportation of the source or, if the source is to be transported on a regular basis (in the opinion of the Authority), at least 7 days prior to the first transportation of the source.

18 Amendments to security plans that do not require review

The following amendments to a security plan are prescribed as amendments to which section 14 (4) of the Act does not apply—

- (a) a change in the security enhanced source arising from the replacement of the source (except where the new source belongs to a higher category),
- (b) minor changes and upgrades to any computer hardware or software identified in the plan,
- (c) changes to contact details for any persons in relation to security responsibilities,
- (d) the addition or omission of details of identification checks and security background checks of personnel,

- (e) in relation to a source transport security plan—changes to the date of travel and any planned principal or alternative route.

Division 2 Security measures

19 Definitions

In this Division—

fixed security enhanced source means a radioactive source located in a device or container that, in the normal course of its use, is permanently secured to a structure and intended to be immobile.

mobile security enhanced source means a radioactive source located in a device or container that, in its normal course of use, is intended to be capable of being moved in a limited way from place to place (such as a large machine on wheels designed to be able to be repositioned by a person within a room in a facility).

20 Security measures for category 1 security enhanced sources

For the purposes of section 14A (1) of the Act, the following security protection measures are prescribed in relation to category 1 sources—

- (a) where the security enhanced source is in use or being stored or transported—the source must be protected by, at a minimum, physical security measures capable of providing sufficient delay to allow immediate detection and assessment of an intrusion and interruption of any unauthorised removal of the source by a guard or police officer,
- (b) in all cases—the appropriate security action determined in accordance with Schedule D to the Code.

21 Security measures for category 2 security enhanced sources

For the purposes of section 14A (1) of the Act, the following security protection measures are prescribed in relation to category 2 sources—

- (a) where a fixed or mobile security enhanced source is in use—the source must be protected by, at a minimum, physical security measures capable of providing sufficient delay to allow immediate detection and assessment of unauthorised access to the source,
- (b) where a security enhanced source is being stored—the source must be protected by, at a minimum, physical security measures capable of providing sufficient delay to allow immediate detection and assessment of unauthorised access to the source location,
- (c) where a security enhanced source is being transported—the source must be protected

by, at a minimum, physical security measures capable of providing sufficient delay to allow immediate detection and assessment of unauthorised access to the source,

- (d) in all cases—the appropriate security action determined in accordance with Schedule D to the Code.

22 Security measures for category 3 security enhanced sources

- (1) For the purposes of section 14A (1) of the Act, the following security protection measures are prescribed in relation to category 3 sources—
 - (a) where a fixed or mobile security enhanced source is in use—the source must be protected by, at a minimum, physical security measures capable of preventing unauthorised access to the source by human force,
 - (b) where the security enhanced source is being stored or transported—the source must be protected by, at a minimum, physical security measures capable of preventing unauthorised access to the source by human force,
 - (c) in all cases—the appropriate security action determined in accordance with Schedule D to the Code.
- (2) In this clause, **human force** means any force that can be exerted by a natural person, including by using tools (except power tools).

23 Duty to report breach of a security measure

- (1) A person responsible for a security enhanced source must provide a written report of any incident involving a breach of a security measure (in relation to the source) to the Authority within 7 days of the incident.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

- (2) The report must include details of the circumstances of the breach and the steps taken to rectify the breach.
- (3) A report does not have to be made if a report has been given in accordance with any other provision of this Regulation.
- (4) A report does not have to be made by a person if a report has already been made by another person responsible for the source.

Division 3 Identity checking

24 Prescribed security enhanced sources for identity checking

All security enhanced sources are prescribed for the purposes of section 14B (1) of the Act.

25 Identity checking

- (1) An identity check must be carried out in accordance with the document entitled *Requirements for identity checks*, published by the Authority, as in force from time to time, a copy of which may be obtained from the Authority.
- (2) The following persons are prescribed for the purposes of section 14B (1) (b) of the Act—
 - (a) a person nominated under Part 2A of the Act as being responsible for implementing a security plan in respect of a security enhanced source,
 - (b) a person who transports the source.

Part 4 Radiation safety and public health

Division 1 Radiation safety in the workplace

26 Duty to comply with dose limits

- (1) An employer must ensure that an occupationally exposed person employed by the employer is not exposed to ionising radiation that exceeds the dose limits for occupationally exposed persons set out in Schedule 5.

Maximum penalty—

 - (a) for a corporation—400 penalty units, or
 - (b) otherwise—200 penalty units.
- (2) An employer must ensure that an occupationally exposed person employed by the employer who is 16 years of age or over but less than 18 years of age is exposed to ionising radiation only—
 - (a) if the person is subject to immediate supervision at the time of exposure, and
 - (b) for the purposes of—
 - (i) training for employment that involves the use of ionising radiation, or
 - (ii) participating in a course of study that involves the use of ionising radiation.

Maximum penalty—

- (a) for a corporation—400 penalty units, or
 - (b) otherwise—200 penalty units.
- (3) An employer must ensure that a person employed by the employer who is less than 16 years of age is not exposed to ionising radiation in the course of the person's

employment.

Maximum penalty—

(a) for a corporation—400 penalty units, or

(b) otherwise—200 penalty units.

(4) In this clause—

immediate supervision has the same meaning as in—

(a) clause 11(3), if the occupationally exposed person is exposed to ionising radiation in relation to the use, for dental diagnostic purposes, of extra-oral x-ray apparatus used with intra-oral image receptors, or

(b) otherwise—clause 10(7).

27 Duty to inform occupationally exposed persons

A person responsible for regulated material in a workplace must ensure that each occupationally exposed person in the workplace is made aware of, and kept informed of any changes in, the following particulars in relation to that regulated material—

(a) the hazards that can arise in connection with the use of the regulated material,

(b) the safety arrangements that exist to protect persons from such hazards and of the steps that the person must take in order to minimise the likelihood that such a hazard will arise,

(c) the name of the radiation safety officer or other person to whom the person should refer to in connection with any matters relating to the use of the regulated material.

Maximum penalty—100 penalty units (in the case of a corporation) and 50 penalty units (in any other case).

28 Radiation management plan

(1) The Authority may, by notice in writing served on an employer, direct the employer—

(a) to prepare or adopt a radiation management plan, and

(b) to submit a copy of the plan to the Authority for approval,

within such time as is specified in the direction.

(2) An employer must not fail to comply with such a direction.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

- (3) An employer whose radiation management plan has been approved by the Authority—
- (a) must ensure that a copy of the plan is available to all occupationally exposed persons employed by the employer, and
 - (b) must take all reasonable steps to ensure that the procedures set out in the plan with respect to the use of radioactive substances and radiation apparatus are followed by all persons in the employ of the employer.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

- (4) A radiation management plan is not to be approved by the Authority unless it conforms to the document entitled *Radiation Guideline 2: Preparation of radiation safety manuals*, published by the Authority, as in force from time to time, a copy of which may be obtained from the Authority.

Division 2 Radiation monitoring

29 Personal monitoring devices

- (1) An employer must provide all occupationally exposed persons in the employ of the employer who are involved in the use of ionising radiation for any one or more of the following purposes with appropriate approved personal monitoring devices for detecting and measuring cumulative exposure to ionising radiation—
- (a) radiotherapy,
 - (b) industrial radiography,
 - (c) nuclear medicine,
 - (d) equine veterinary radiography,
 - (e) scientific research in laboratories classified as medium level laboratories or high level laboratories where radioactive substances that are not contained in sealed source devices are used,
 - (f) diagnostic or interventional radiology (other than dentistry, veterinary and chiropractic applications),
 - (g) neutron based detection, analysis and gauging (but only when used in bore-hole logging),
 - (h) servicing of ionising radiation apparatus or devices containing radioactive substances.

Maximum penalty—250 penalty units (in the case of a corporation) and 125 penalty

units (in any other case).

- (2) An occupationally exposed person to whom an approved monitoring device has been provided in accordance with this clause must wear the device while involved in the use of ionising radiation in the course of the person's employment.

Maximum penalty—50 penalty units.

- (3) The Authority may impose conditions on the approval of a personal monitoring device referred to in this clause.

30 Personal radiation exposure record

- (1) An employer must ensure that, for each occupationally exposed person to whom a personal monitoring device is issued, a record is kept, in accordance with this clause and on an appropriate periodic basis—
 - (a) of the amount of radiation to which the person has been exposed, as measured by the device, and
 - (b) of the results of any tests carried out or caused to be carried out by the employer in relation to the person for the purpose of determining the amount of radiation to which the person has been exposed.

Maximum penalty—100 penalty units (in the case of a corporation) and 50 penalty units (in any other case).

- (2) Such a record must contain the following particulars—
 - (a) the full name, sex and date of birth of the occupationally exposed person,
 - (b) the current home address of the occupationally exposed person or, if the person is no longer employed by the employer, the person's last known home address,
 - (c) the date of commencement of employment (and, if applicable, the date of cessation of employment) as an occupationally exposed person,
 - (d) the kind of work performed by the occupationally exposed person,
 - (e) details of the types of ionising radiation to which the occupationally exposed person may have been exposed in the course of employment with the employer, including information about radioactive substances in unsealed form (if any) to which the occupationally exposed person may have been exposed,
 - (f) details of any radiation accidents in which the person has been involved or by which the person may have been affected,
 - (g) details of the personal monitoring device worn by the occupationally exposed person,

(h) the results of monitoring the levels of radiation exposure of the occupationally exposed person.

(3) When an employee leaves an employer's employment, the employer—

- (a) must cause a copy of the radiation exposure records relating to the employee to be given to the employee, and
- (b) if the employee is taking up employment as an occupationally exposed person with another employer and if the employee requests, must cause a further copy of those records to be given to the other employer.

Maximum penalty—100 penalty units (in the case of a corporation) and 50 penalty units (in any other case).

(4) An employer must ensure that a warning in the following terms accompanies a copy of the radiation exposure records given to an employee by the employer in accordance with subclause (3)—

THESE RECORDS SHOULD BE KEPT SAFELY AND PERMANENTLY AND BE GIVEN TO ANY FUTURE EMPLOYER EMPLOYING YOU AS A RADIATION WORKER.

Maximum penalty—100 penalty units (in the case of a corporation) and 50 penalty units (in any other case).

(5) An employer by whom records are required to be kept must ensure that the records are available for inspection by the person to whom they relate at reasonable times during normal working hours.

Maximum penalty—100 penalty units (in the case of a corporation) and 50 penalty units (in any other case).

31 Area monitoring devices

- (1) The Authority may, by notice in writing served on an employer, direct the employer to take specified action with respect to the monitoring of radiation on specified premises.
- (2) In particular, such a direction may require the employer to ensure that specified premises are equipped with approved monitoring devices for the purpose of monitoring the presence and level of radiation on the premises.
- (3) The Authority may impose conditions on the approval of a monitoring device referred to in this clause.
- (4) An employer must not contravene a direction in force under this clause.

Maximum penalty—100 penalty units (in the case of a corporation) and 50 penalty units (in any other case).

- (5) An employer must ensure that, for each monitoring device with which premises are equipped for the purposes of this clause, a record is kept of the following particulars—
- (a) the date on which the device was acquired,
 - (b) the date of each occasion on which the device was repaired and the details of the repairs,
 - (c) the date on which the device was last calibrated.

Maximum penalty—100 penalty units (in the case of a corporation) and 50 penalty units (in any other case).

32 Maintenance of monitoring devices

An employer must ensure that all monitoring devices that are issued or installed by the employer in accordance with the requirements of this Division are checked, maintained and calibrated in accordance with the document entitled *Radiation Guideline 1: Monitoring devices*, as in force from time to time, a copy of which may be obtained from the Authority.

Maximum penalty—200 penalty units (in the case of a corporation) and 100 penalty units (in any other case).

Division 3 Voluntary exposure to radiation for scientific or research purposes

33 Voluntary exposure to radiation for scientific or research purposes

A person must not expose any other person to ionising radiation for scientific or research purposes except in accordance with the document entitled *Code of Practice for the Exposure of Humans to Ionizing Radiation for Research Purposes*, published by the Australian Radiation Protection and Nuclear Safety Agency, as in force from time to time.

Maximum penalty—200 penalty units (in the case of a corporation) and 100 penalty units (in any other case).

Division 4 Disposal and transport of radioactive substances and radiation apparatus

34 Disposal of radiation apparatus

A person must not dispose of radiation apparatus unless the apparatus has been rendered permanently inoperable.

Maximum penalty—

- (a) for an individual—200 penalty units, or

- (b) otherwise—400 penalty units.

34A (Repealed)

35 Records to be kept of disposal of regulated material

- (1) A person who disposes of regulated material must maintain a record, in accordance with this clause, of the disposal.

Maximum penalty—200 penalty units (in the case of a corporation) and 100 penalty units (in any other case).

- (2) The record must include all of the following information that is relevant to the regulated material concerned—
 - (a) the type of regulated material disposed of,
 - (b) an estimate of the total activity of the regulated material disposed of,
 - (c) the manner in which the regulated material was disposed of,
 - (d) the date on which the regulated material was disposed of.

36 (Repealed)

Division 5 Radiation accidents

37 Certain occurrences are taken to be radiation accidents

- (1) For the purposes of this Regulation, a **radiation accident** is to be treated as having occurred if there is an occurrence that involves the unplanned or unexpected emission of radiation (including spillage or leakage of a radioactive substance or damage to radiation apparatus) and that is of such a nature or extent that it is likely—
 - (a) that one or more persons have, or could have, received an effective dose of radiation equal to or in excess of—
 - (i) 5 millisieverts, in the case of an occupationally exposed person, or
 - (ii) 1 millisievert, in any other case, or
 - (b) that the premises or the environment may have become contaminated within the meaning of section 21 of the Act.
- (2) For the purposes of this Regulation, a **radiation accident** is to be treated as having occurred if there is an occurrence that involves the misuse of radiation apparatus or maladministration of a radioactive substance used for medical purposes and that involves any of the following—
 - (a) the administration of a radioactive substance for diagnostic purposes in a quantity

of more than 50 per cent more than that prescribed,

- (b) the administration of a radioactive substance for therapeutic purposes at an activity differing by more than 15 per cent from that prescribed,
- (c) the administration of a therapeutic dose of radiation from radiation apparatus or a sealed source device which differs from the total prescribed treatment dose by more than 10 per cent,
- (d) the administration of a dose of radiation for diagnostic and interventional purposes from a radiation apparatus that results in one or more persons receiving an effective dose of radiation equal to or in excess of 1 millisievert,
- (e) the unintended administration of radiation as a result of a malfunction of radiation apparatus,
- (f) the administration of a radiation dose to the wrong patient or to the wrong part of a patient's body,
- (g) the administration of a radiopharmaceutical otherwise than as prescribed.

38 Duty to report and investigate apparent radiation accidents

- (1) A person responsible for regulated material must give written notice to the Authority of the following in relation to the regulated material—
 - (a) the particulars specified in subclause (2) (a)–(d) within 48 hours of becoming aware of an apparent radiation accident (or immediately if the accident is of such a nature or extent that it is likely that the premises or the environment may have become contaminated within the meaning of section 21 of the Act), and
 - (b) the particulars specified in subclause (2) (e) within 10 days of becoming aware of an apparent radiation accident.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

- (2) The notice must contain the following particulars—
 - (a) particulars of the accident indicating, as far as is possible, the place where it occurred and the period during which emission of radiation was uncontrolled,
 - (b) particulars of the area over which any radioactive substances may have been dispersed,
 - (c) particulars of any steps taken to rectify the accident,
 - (d) particulars of any personal injury or exposure that may have resulted,

- (e) particulars of any assessment of the radiation dose to which any person may have been exposed as a result of the accident,
 - (f) particulars of any steps taken to reduce the risk of a similar accident occurring in the future.
- (3) Notice does not have to be given by a person if notice has already been given by another person responsible for the material.

39 Record of accidents

- (1) A person responsible for regulated material must maintain a record, in accordance with this clause, of all radiation accidents in relation to that regulated material.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

- (2) Such a record must, for each radiation accident that is reported to the responsible person, contain the following particulars—
- (a) particulars of the accident indicating, as far as is possible, the place where it occurred and the period during which emission of radiation was uncontrolled,
 - (b) the name of any occupationally exposed person or other person who was there during that period,
 - (c) an estimate of the radiation dose to which any person may have been exposed,
 - (d) details and results of any medical examinations undertaken as a result of the accident,
 - (e) particulars of the area over which any radioactive substances may have been dispersed,
 - (f) particulars of any steps taken to rectify the accident,
 - (g) the time at which the accident was reported to the employer,
 - (h) the probable cause of the accident,
 - (i) particulars of any investigations conducted into the accident, together with the results of the investigations,
 - (j) particulars of any steps taken to reduce the risk of a similar accident occurring in the future.
- (3) A record does not have to be maintained by a person if the record is already maintained by another person responsible for the material.

40 Faults or defects

- (1) A person responsible for regulated material, on becoming aware that a fault may exist in any radiation apparatus that is regulated material for which that person is responsible—
 - (a) must immediately investigate the apparent fault and, if necessary, cause the apparatus to be removed, replaced or repaired, and
 - (b) must, as soon as practicable (but, in any case, within 7 days), inform all persons who may have been exposed to radiation in quantities in excess of those that would normally be received from the apparatus in faultless condition that they may have been so exposed.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

- (2) A person responsible for regulated material, on becoming aware that a fault or defect may exist in any sealed source device that is regulated material for which that person is responsible—
 - (a) must immediately investigate the apparent fault or defect and, if necessary, cause the sealed source device to be removed, replaced or repaired, and
 - (b) must, as soon as practicable (but, in any case, within 7 days), inform all persons who may have been exposed to radiation in quantities in excess of those that would normally be received from the sealed source device in faultless condition that they may have been so exposed.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

- (3) A person is not required to comply with a requirement of this clause if another person responsible for the material has complied with the requirement.

Division 6 Prohibitions to protect public health

41 Prohibition on commercial cosmetic tanning services

- (1) A person must not provide, or offer to provide, another person with a cosmetic tanning service for fee or reward or in connection with another service that is provided for fee or reward.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

- (2) In this clause—

cosmetic tanning service means the tanning of human skin, for purposes other

than medical purposes, through the use of any radiation apparatus that emits ultraviolet radiation.

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

(3) This clause does not take effect until 31 December 2014.

Note—

Schedule 8 contains transitional provisions relating to the operation of commercial cosmetic tanning services until 31 December 2014.

42 Duty to protect public from exposure to radiation

A person responsible for regulated material must ensure that a member of the public is not exposed to ionising radiation from that regulated material that exceeds the dose limits for members of the public set out in Schedule 5.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

Division 7 Miscellaneous

43 Appointment of radiation safety officers and committees

(1) The Authority may, by notice in writing served on an employer—

- (a) direct the employer to appoint a radiation safety officer or a radiation safety committee, or both, for a workplace, and
- (b) in the case of a direction to appoint a radiation safety officer, determine the qualifications to be held by a person so appointed, and
- (c) direct what functions are to be exercised by a radiation safety officer or radiation safety committee so appointed.

(2) An employer—

- (a) must not fail to appoint a radiation safety officer or a radiation safety committee, or both, in accordance with a direction under this clause, and
- (b) must not allow the functions of the radiation safety officer or radiation safety committee to be exercised otherwise than by the officer or the committee, as the case requires.

Maximum penalty—200 penalty units (in the case of a corporation) and 100 penalty units (in any other case).

44 Loss or theft of regulated material

(1) If any regulated material (except a security enhanced source), is lost or stolen—

- (a) the person who is the owner of the regulated material, and
- (b) any other person who is the person responsible for the regulated material or is licensed and employed to use, or supervise the use of, the material,

must cause notice of the loss or theft to be given to the Authority immediately after the person becomes aware of the loss or theft.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

(2) Notice does not have to be given by any one of those persons if notice has already been given by any other of those persons.

45 Loss or theft of security enhanced source

(1) If there is a breach of a prescribed security measure that results in a security enhanced source being lost, stolen, intentionally damaged or accessed without authority, a person responsible for the security enhanced source must—

- (a) immediately notify the Authority and the NSW Police Force of the incident, and
- (b) within 7 days of the notice, submit a report of the incident to the Authority that contains the following information—
 - (i) circumstances of the loss, theft, damage or access,
 - (ii) steps taken to rectify the loss, theft, damage or access,
 - (iii) if any regulated material is lost or stolen—any information that may assist in the recovery of the material.

Maximum penalty—400 penalty units (in the case of a corporation) and 200 penalty units (in any other case).

(2) Notice does not have to be given by a person if notice has already been given by another person responsible for the source.

(3) A report does not have to be submitted by a person if a report has already been submitted by another person responsible for the source.

46 Warning signs

The occupier of any premises in or on which any regulated material, not specified in Part 4 of Schedule 3, is kept must ensure that a warning sign in or to the effect of the form set out in Schedule 6 (with colouring as indicated in the note to that Schedule) is

conspicuously displayed in the immediate vicinity of the regulated material.

Maximum penalty—100 penalty units (in the case of a corporation) and 50 penalty units (in any other case).

Part 5 Miscellaneous

47 Exercise of certain functions by Secretary of Regional NSW

- (1) For the purposes of section 5A (2) of the Act, the following functions of the Authority and of the CEO of the Authority are prescribed—
 - (a) the functions specified in sections 187 (1), 189 (1), 191 (1), 210 and 212A of the *Protection of the Environment Operations Act 1997* (as extended to the exercise of powers in connection with the *Radiation Control Act 1990* and this Regulation by section 15 of the *Radiation Control Act 1990*),
 - (b) the functions specified in sections 18, 19, 21, 24A, 25 (2) and (4), 26 (2), 27, 28, 36 and 38A of the Act,
 - (c) the functions specified in clauses 28, 31 (1), 38, 43, 44 and 50 of this Regulation.
- (2) The power to exercise functions in accordance with this clause is limited to the exercise of such functions in respect of radioactive ore that is located—
 - (a) at any workplace to which the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* applies, or
 - (b) (Repealed)
 - (c) at any place where activities that are regulated under the *Petroleum (Offshore) Act 1982* are carried out, or
 - (d) at any place where activities that are regulated under the *Petroleum (Onshore) Act 1991* are carried out.
- (3) A person appointed as an authorised officer by the Secretary of Regional NSW (when exercising functions in accordance with this clause) may only exercise the functions of an authorised officer in respect of radioactive ore that is located—
 - (a) at any workplace to which the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* applies, or
 - (b) (Repealed)
 - (c) at any place where activities that are regulated under the *Petroleum (Offshore) Act 1982* are carried out, or
 - (d) at any place where activities that are regulated under the *Petroleum (Onshore)*

Act 1991 are carried out.

- (4) A person appointed as an authorised officer by the Secretary of Regional NSW (when exercising functions in accordance with this clause) may not exercise the functions of an authorised officer in respect of any offence except—
 - (a) an offence under section 18, 19 or 36B of the Act, or
 - (b) an offence under clause 26, 27, 28, 30, 31, 32, 35, 36, 38, 39, 42, 43, 44 or 50 of this Regulation.
- (5) The power to exercise the functions specified in sections 24A and 25 of the Act is limited to the exercise of those functions in respect of—
 - (a) an offence under section 18, 19 or 36B of the Act, or
 - (b) an offence under clause 26, 27, 28, 30, 31, 32, 35, 36, 38, 39, 42, 43, 44 or 50 of this Regulation.

48, 49 (Repealed)

50 Destruction or disposal of records

- (1) An employer or person responsible for regulated material must not destroy or otherwise dispose of any records required to be kept under this Regulation otherwise than in accordance with this clause.

Maximum penalty—200 penalty units (in the case of a corporation) and 100 penalty units (in any other case).
- (2) An employer or person responsible for regulated material may, with the consent of the Authority, destroy or otherwise dispose of any records that the employer or responsible person is required by this Regulation to keep.
- (3) The Authority is not to give consent to the destruction of any records kept under clause 30 by an employer until at least 5 years after the cessation of employment with the employer of the employee concerned.
- (4) An employer may forward to the Authority the records kept under this Regulation by the employer if the employer ceases to carry on business in New South Wales.
- (5) The Authority may dispose of any records forwarded to or kept by the Authority in accordance with this Regulation.

51 Contamination of premises by radioactivity: section 21

- (1) For the purposes of section 21 (4) of the Act, the prescribed level of activity for premises where one radionuclide is causing the radioactivity is where the activity of the radionuclide causing the contamination is 100 times the exempt activity specified

in relation to the radionuclide in the Safety Standards, Table I.1.

- (2) For the purposes of section 21 (4) of the Act, the prescribed level of activity for premises where a mixture of two or more radionuclides are causing the radioactivity is where the sum of the activity ratios of the radionuclides is 100 (where the activity ratio of a radionuclide is equal to its actual activity divided by the exempt activity specified in the Safety Standards, Table I.1 for that radionuclide).
- (3) In this clause—

the Safety Standards means the *Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, General Safety Requirements Part 3*, published by the International Atomic Energy Agency, as in force from time to time.

52 Penalty notice offences

For the purposes of section 25A of the Act—

- (a) each offence created by a provision specified in Column 1 of Schedule 7 is declared to be a penalty notice offence, and
- (b) the prescribed penalty for such an offence is the amount specified in Column 2 of Schedule 7.

53 Forfeiture of property: sections 26 and 27

- (1) An application made by or on behalf of the Authority for the purposes of section 26 (2) of the Act is to be in writing.
- (2) A notice referred to in section 27 (1) (b) of the Act is to be in writing addressed to the owner of the substance or thing concerned at that person's address last known to the Authority.

54 Operation of provisions about tanning salons after their repeal

Despite the repeal of Schedule 8 on 31 December 2014, clause 14 of that Schedule continues (until 31 December 2016) to apply to a person who carried on a solaria business at any time in the 2 years before the repeal of that clause.

55 Repeal

- (1) The *Radiation Control Regulation 2003* is repealed.
- (2) Any act, matter or thing that, immediately before the repeal of the *Radiation Control Regulation 2003*, had effect under that Regulation continues to have effect under this Regulation.

Schedule 1 Prescribed activity of a radioactive substance

(Clause 3 (2))

Column 1

Column 2

Group 1

Ac227	Am241	Am243	Cf249	Cf250	Cf252	Cm242	Cm243	40 kilobecquerels
Cm244	Cm245	Cm246	Np237	Pa231	Pb210	Po210	Pu238	
Pu239	Pu240	Pu241	Pu242	Ra223	Ra226	Ra228	Th227	
Th228	Th230	U230	U232	U233	U234			

Any alpha emitting radionuclide that is not included in any other Group in this Schedule

Column 1

Column 2

Group 2

Ac228	Ag110m	At211	Ba140	Bi207	Bi210	Bk249	Ca45	400 kilobecquerels
Cd115m	Ce144	Cl36	Co56	Co60	Cs134	Cs137	Eu152	
Eu154	Ge68	Hf181	I124	I125	I126	I131	I133	
In114m	Ir192	Mn54	Na22	Pa230	Pb212	Ra224	Ru106	
Sb124	Sb125	Sc46	Sr89	Sr90	Ta182	Tb160	Te127m	
Te129m	Th234	Tl204	Tm170	U236	Y91	Zr95		

Any radionuclide that is not alpha emitting and is not included in any other Group in this Schedule

Column 1

Column 2

Group 3

Ag105	Ag111	Ar41	As73	As74	As76	As77	Au196	4 megabecquerels
Au198	Au199	Ba131	Ba133	Be7	Bi206	Bi212	Br75	
Br76	Br82	Ca47	Cd109	Cd115	Ce141	Ce143	Cl38	
Co57	Co58	Cr51	Cs129	Cs131	Cs136	Cu64	Cu67	
Dy165	Dy166	Er161	Er169	Er171	Eu152m	Eu155	F18	
Fe52	Fe55	Fe59	Ga67	Ga72	Gd153	Gd159	Hf175	
Hg195m	Hg197	Hg197m	Hg203	Ho166	I123	I130	I132	

I134	I135	In111	In115	In115m	Ir190	Ir194	K42
K43	Kr85m	Kr87	La140	Lu177	Mg28	Mn52	Mn56
Mo99	Na24	Nb93m	Nb95	Nd147	Nd149	Ni63	Ni65
Np239	Os185	Os191	Os193	P32	P33	Pa233	Pb203
Pd103	Pd109	Pm147	Pm149	Pr142	Pr143	Pt191	Pt193
Pt197	Rb81	Rb86	Re183	Re186	Re188	Rh105	Rn220
Rn222	Ru103	Ru105	Ru97	S35	Sb122	Sc47	Sc48
Se75	Si31	Sm151	Sm153	Sn113	Sn121	Sn125	Sr85
Sr91	Sr92	Tc96	Tc97	Tc97m	Tc99	Te125m	Te127
Te129	Te131m	Te132	Th231	Tl200	Tl201	Tl202	Tm171
U239	V48	W181	W185	W187	Xe135	Y87	Y90
Y92	Y93	Yb175	Zn62	Zn65	Zn69m	Zr97	

Column 1**Column 2****Group 4**

Ar37	C11	C14	Co58m	Cs134m	Cs135	Cu62	Ga68	40 megabecquerels
H3	H3	I129	In113m	Kr81m	Kr85	N13	Nb97	
Ni59	O15	Os191m	Pt197m	Pt197m	Rb87	Re187	Se73	
Se73	Sm147	Sr85m	Sr87m	Tc96m	Tc99m	Th nat	U nat	
U nat	U235	U238	Xe131m	Xe133	Y91m	Zn69	Zr93	

Schedule 2 Classification of laboratories

(Clause 3 (3))

1 Classification of laboratories

(1) The classification of a laboratory is to relate to each single work area and is to be determined by—

- (a) multiplying the total activity of the relevant radioactive substances by the most appropriate modifying factor in Table 1, and
- (b) considering Table 2, which provides the activity limits for the classification of premises by reference to the Group that the substance appears in Schedule 1.

(2) In this clause—

relevant radioactive substances means radioactive substances (not in the form of a sealed radioactive source) from Group 1 to Group 4 of Schedule 1 which are kept or used within a single work area or laboratory.

Table 1

Procedure	Factor
Simple storage	x0.01
Very simple wet operations (for example, using aliquots of stock solutions)	x0.1
Normal chemical operations (for example analysis of simple chemical preparations)	x1
Complex wet operations (for example multiple operations or operations with complex glass apparatus)	x10
Simple dry operations (for example manipulation of powders) and work with volatile radioactive compounds	x100
Complex dry operations (for example where powders are likely to become airborne) and work with radioactive gases	x1000

Table 2

Schedule 1 Groups	Low level laboratory	Medium level laboratory	High level laboratory
Group 1 radionuclides	<0.2 MBq	0.2 MBq to 20 MBq	>20 MBq
Group 2 radionuclides	<20 MBq	20 MBq to 2 GBq	>2 GBq
Group 3 radionuclides	<2 GBq	2 GBq to 0.2 TBq	>0.2 TBq
Group 4 radionuclides	<0.2 TBq	0.2 TBq to 20 TBq	>20 TBq

Schedule 3 Exemptions from licensing

(Clauses 8, 9 and 46)

Part 1 Exemptions from radiation user licensing requirements for certain radioactive substances

- 1 Sealed source devices used for radiation gauging installed in fixed positions
- 2 Self-shielded irradiators (that is, gamma irradiators in which the radioactive substance is completely enclosed in a dry container constructed of solid material that shields the radioactive substance)

Part 2 Exemptions from radiation management and radiation user

licensing requirements for certain radioactive substances

- 1 Radioactive substances in luminous dials on any devices, including on clocks and watches
- 2 Gaseous tritium in luminous devices, including in self luminous "EXIT" signs
- 3 Radioactive substances used in nuclear medicine for checking gamma cameras and dose calibrators and having a level of activity of less than 40 megabecquerels
- 4 Radioactive substances used as laboratory reference sources and having a level of activity of less than 40 megabecquerels
- 5 Radioactive substances for demonstration, teaching or training having a level of activity of less than 40 megabecquerels
- 6 Uranium metal of natural isotopic composition, or depleted in uranium 235, which is used as radiation shielding in transport packages for radioactive substances or is used in any other manner
- 7 Radioactive substances used in electron capture detectors or similar devices used in gas chromatography
- 8 Radioactive substances used as static eliminators and having a level of activity of less than 40 megabecquerels
- 9 Radioactive ores that are at any place to which the [Work Health and Safety \(Mines and Petroleum Sites\) Act 2013](#) applies
- 10 (Repealed)
- 11 Radioactive ores that are at any place where activities that are regulated under the [Petroleum \(Offshore\) Act 1982](#) are carried out
- 12 Radioactive ores that are at any place where activities that are regulated under the [Petroleum \(Onshore\) Act 1991](#) are carried out
- 13 Americium 241 in industrial smoke detectors that do not contain any other radioactive substance

Part 3 Exemptions from radiation user licensing requirements for certain ionising radiation apparatus

- 1 X-ray baggage inspection apparatus
- 2 Cabinet x-ray inspection apparatus
- 3 Enclosed x-ray diffraction, absorption and fluorescence analysers that comply with the requirements for enclosed units as defined in the document published by the National Health and Medical Research Council entitled *Code of practice for protection against ionizing radiation emitted from X-ray analysis equipment* (or as defined in any document replacing that document that is published by the Australian Radiation Protection and Nuclear Safety Agency)
- 4 X-ray apparatus used for radiation gauging and installed in a fixed position

Part 4 Exemptions from radiation management and radiation user

licensing requirements for certain ionising radiation apparatus

- 1 Television receivers
- 2 Visual display units
- 3 Cold cathode gas discharge tubes
- 4 Electron microscopes

Part 5

(Repealed)

Schedule 4 Fees

(Clause 14 (1))

Part 1 Fees payable

Item	Type of fee	Fee (in fee units)
		1.13 for a simple application
1	Application fee for a new licence or accreditation	3.39 for an application referred by the Authority to the Council for advice
		1.85 for a licence the duration of which is 1 year
2	Radiation management licence in the case of a licence that only authorises the selling of regulated material	5.56 for a licence the duration of which is 3 years
		1.32 per year plus—
		0.16 per unit of regulated material (where the material is Group A regulated material)
3	Radiation management licence in any other case	0.33 per unit of regulated material (where the material is Group B regulated material)

4

Radiation user licence

0.65 per unit of
regulated material
(where the material
is Group C
regulated material)

14.19 per unit of
regulated material
(where the
regulated material
is Group D
regulated material)

0.68 for a licence
the duration of
which is 1 year
(where the licence
relates to the use of
Group 1 regulated
material)

2.03 for a licence
the duration of
which is 3 years
(where the licence
relates to the use of
Group 1 regulated
material)

0.83 for a licence
the duration of
which is 1 year
(where the licence
relates to the use of
Group 2 regulated
material)

2.49 for a licence
the duration of
which is 3 years
(where the licence
relates to the use of
Group 2 regulated
material)

1.28 for a licence
the duration of
which is 1 year
(where the licence
relates to the use of
Group 3 regulated
material)

		3.84 for a licence the duration of which is 3 years (where the licence relates to the use of Group 3 regulated material)
5	Accreditation under section 8 of the Act	3.39
		1.13 for simple variation
6	Variation of licence under section 10 of the Act on application of the holder of the licence	3.39 for a variation referred by the Authority to the Council for advice
		1.13 for simple variation
7	Variation of accreditation under section 10 of the Act on application of the holder of the accreditation	3.39 for a variation referred by the Authority to the Council for advice
8	Renewal of radiation management licence that only authorises the selling of regulated material	1.85 for a renewed licence the duration of which is 1 year 5.56 for a renewed licence the duration of which is 3 years 1.32 plus— 0.16 per unit of regulated material (where the material is Group A regulated material)
9	Renewal of radiation management licence in any other case	0.33 per unit of regulated material (where the material is Group B regulated material) 0.65 per unit of regulated material (where the material is Group C regulated material)

10

Renewal of radiation user licence

14.19 per unit of regulated material (where the material is Group D regulated material)

0.68 for a licence the duration of which is 1 year (where the licence relates to the use of Group 1 regulated material)

2.03 for a licence the duration of which is 3 years (where the licence relates to the use of Group 1 regulated material)

0.83 for a licence the duration of which is 1 year (where the licence relates to the use of Group 2 regulated material)

2.49 for a licence the duration of which is 3 years (where the licence relates to the use of Group 2 regulated material)

1.28 for a licence the duration of which is 1 year (where the licence relates to the use of Group 3 regulated material)

3.84 for a licence the duration of which is 3 years (where the licence relates to the use of Group 3 regulated material)

11	Renewal of accreditation	3.39 for a renewed accreditation the duration of which is 1 year
12	Notice to avoid or remedy contraventions or exposure under section 18 (1) of the Act	3.39
13	Approval of personal monitoring devices required by clause 29	9.62
14	Approval of area monitoring devices required by clause 31	9.62

Part 2 Adjustment of fees for inflation

1 Definitions

In this Part—

financial year means a period of 12 months commencing on 1 July.

Public Sector Wage Price Index number means the Wage Price Index (Public Sector) for New South Wales published by the Australian Bureau of Statistics in the latest published series of that index.

2 Calculation of fee unit for purposes of Regulation

(1) For the purposes of this Regulation, a **fee unit** is—

- (a) in the financial year 2018-19—\$100, and
- (b) in each subsequent financial year—the amount calculated as follows—

$$\frac{U}{0.02} + \frac{Th}{0.05}$$

where—

A is the Public Sector Wage Price Index number for the March quarter in the financial year immediately preceding the financial year for which the amount is calculated.

B is the Public Sector Wage Price Index number for the March quarter of 2018.

- (2) The amount of a fee unit is to be rounded up to the nearest cent.
- (3) However, if the amount of a fee unit calculated for any financial year is less than the amount that applied for the previous financial year, then the amount for that previous financial year applies instead.

3 Rounding of fee amounts

The amount of a fee calculated by reference to a fee unit is to be rounded up to the

nearest dollar.

4 Notice of indexed fees

- (1) As soon as practicable after the Public Sector Wage Price Index number for the March quarter is first published by the Australian Statistician, the Authority is required to—

(a) notify the Parliamentary Counsel of the amount of the fee unit for the next financial year so that notice of that amount can be published on the NSW legislation website, and
(b) give public notice on the Authority’s website of the actual amounts of the fees applying in each financial year resulting from the application of the amount of a fee unit calculated under this Part.
- (2) This Part operates to change an amount of a fee that is calculated by reference to a fee unit and that change is not dependent on the notification or other notice required by this clause.
- (3) In this clause—

Australian Statistician means the Australian Statistician referred to in section 5 (2) of the [Australian Bureau of Statistics Act 1975](#) of the Commonwealth.

Schedule 5 Dose limits for exposure to ionising radiation

clauses 26 and 42

Application	Dose limit—occupationally exposed persons who are 18 years of age or over	Dose limit—occupationally exposed persons who are 16 years of age or over but less than 18 years of age	Dose limit—members of the public
Effective dose	20 mSv per year, averaged over a period of 5 consecutive calendar years ^{4, 5, 6}	6 mSv per year	1 mSv per year ⁷
Equivalent dose to—			
(a) lens of the eye	20 mSv per year, averaged over a period of 5 consecutive calendar years ^{4, 5, 6}	20 mSv per year	15 mSv per year
(b) skin ⁸	500 mSv per year	150 mSv per year	50 mSv per year
(c) hands and feet	500 mSv per year	150 mSv per year	No limit specified

Note 1—

The limits apply to the sum of the relevant doses from external exposure in the specified period and the committed dose from intakes in the same period. In this Note, **committed dose** means the dose of radiation, arising from the intake of radioactive material, accumulated by the body over 50 years following the intake (except in the case of intakes by children, where it is the dose accumulated until the age of 70).

Note 2—

Any dose resulting from medical diagnosis or treatment should not be taken into account.

Note 3—

Any dose attributable to normal naturally occurring background levels of radiation should not be taken into account.

Note 4—

With the further provision that the effective dose must not exceed 50mSv in any single year.

Note 5—

If an occupationally exposed person declares a pregnancy, the embryo or foetus should be afforded the same level of protection as required for members of the public.

Note 6—

When, in exceptional circumstances, a temporary change in the dose limitation requirements is approved by the Authority, one only of the following conditions applies—

- (a) the effective dose limit must not exceed 50mSv per year for the period, that must not exceed 5 years, for which the temporary change is approved,
- (b) the period for which the 20mSv per year average applies must not exceed 10 consecutive years and the effective dose must not exceed 50mSv in any single year.

Note 7—

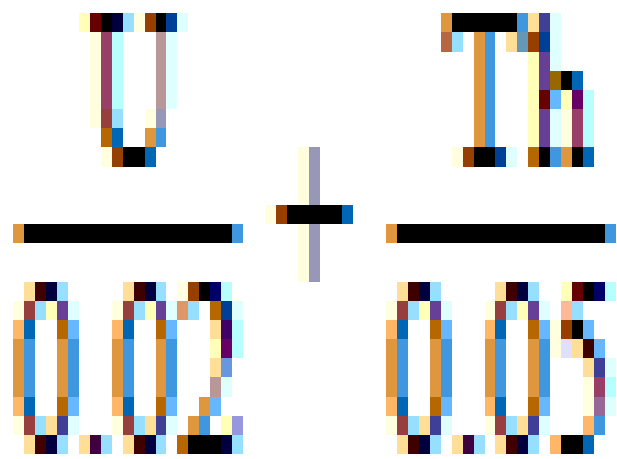
In special circumstances, a higher value of effective dose could be allowed in a single year, provided that the average over 5 years does not exceed 1mSv per year.

Note 8—

The equivalent dose limit for the skin applies to the dose averaged over any 1 square centimetre of skin, regardless of the total area exposed.

Schedule 6 Prescribed warning sign

(Clause 46)



Note—

The sign is to have a yellow background with the distinctive symbol in black and the lettering “CAUTION RADIATION” in black.

Schedule 7 Penalty notice offences

(Clause 52)

Column 1	Column 2
Provision	Penalty
Offences under the Act	
Section 6 (2)	\$1500 for a corporation \$750 for an individual
Section 6 (6)	\$1500 for a corporation \$750 for an individual
Section 7	\$750
Section 8 (1)	\$1000
Section 8 (2)	\$1000
Section 13 (5)	\$250
Section 13A (4)	\$1500 for a corporation \$750 for an individual
Section 13A (5)	\$1000

Section 14 (1)	\$1500 for a corporation \$750 for an individual
Section 14 (4)	\$1500 for a corporation \$750 for an individual
Section 14 (6)	\$1500 for a corporation \$750 for an individual
Section 14 (7)	\$1500 for a corporation \$750 for an individual
Section 14A (1)	\$1500 for a corporation \$750 for an individual
Section 14A (2)	\$1500 for a corporation \$750 for an individual
Section 14B (1)	\$1500 for a corporation \$750 for an individual
Section 14B (5)	\$1500 for a corporation \$750 for an individual
Section 18 (4) (a)	\$1500 for a corporation \$750 for an individual
Section 18 (4) (b)	\$1500 for a corporation \$750 for an individual
Section 19 (4)	\$1500 for a corporation \$750 for an individual
Section 19 (5)	\$1500 for a corporation \$750 for an individual
Section 19 (6)	\$1500 for a corporation \$750 for an individual
Section 33A(1)	\$1500 for a corporation \$750 for an individual
Section 33C	\$1500 for a corporation \$750 for an individual
Section 33D(1)	\$1500 for a corporation \$750 for an individual

Offences under this Regulation

Clause 10 (5)	\$250
Clause 10 (6)	\$250
Clause 23 (1)	\$1500 for a corporation \$750 for an individual

Clause 26 (1)	\$1500 for a corporation \$750 for an individual
Clause 26 (2)	\$1500 for a corporation \$750 for an individual
Clause 26(3)	\$1500 for a corporation \$750 for an individual
Clause 27	\$1000 for a corporation \$250 for an individual
Clause 28 (2)	\$500 for a corporation \$250 for an individual
Clause 28 (3)	\$500 for a corporation \$250 for an individual
Clause 29 (1)	\$1000 for a corporation \$500 for an individual
Clause 29 (2)	\$500
Clause 30 (1)	\$500 for a corporation \$250 for an individual
Clause 30 (3)	\$500 for a corporation \$250 for an individual
Clause 30 (4)	\$500 for a corporation \$250 for an individual
Clause 30 (5)	\$500 for a corporation \$250 for an individual
Clause 31 (4)	\$500 for a corporation \$250 for an individual
Clause 31 (5)	\$500 for a corporation \$250 for an individual
Clause 32	\$1000 for a corporation \$500 for an individual
Clause 33	\$1000 for a corporation \$500 for an individual
Clause 34	\$1500 for a corporation \$750 for an individual
Clause 35 (1)	\$1500 for a corporation \$750 for an individual
Clause 38 (1)	\$1000 for a corporation \$500 for an individual
Clause 39 (1)	\$500 for a corporation \$250 for an individual

Clause 40 (1)	\$1000 for a corporation \$500 for an individual
Clause 40 (2)	\$1000 for a corporation \$500 for an individual
Clause 41 (1)	\$1500
Clause 42	\$1500 for a corporation \$750 for an individual
Clause 43 (2)	\$500 for a corporation \$250 for an individual
Clause 44 (1)	\$1500 for a corporation \$750 for an individual
Clause 45 (1)	\$1500 for a corporation \$750 for an individual
Clause 46	\$500 for a corporation \$250 for an individual
Clause 50 (1)	\$500 for a corporation \$250 for an individual

Schedule 8 (Repealed)