

Radiation Protection and Control Bill 2018 explanatory report

Issued December 2018

EPA 1109/18: This information sheet explains proposed amendments to the current Radiation Protection and Control Act 1982 and includes the provisions to adopt aspects of the National Directory relating to radiation protection principles, management requirements for radiation sources and provision for the future adoption of documents, and the Code of Practice for the Security of Radioactive Sources.

Introduction

In South Australia, the *Radiation Protection and Control Act 1982* (the RPC Act) regulates activities involving radiation sources and provides for the protection of people and the environment from the harmful effects of radiation. This includes providing for the licensing of certain activities, and registration of certain items and premises which involve radiation sources. The Act regulates radiation use across a number of industries including industrial processing, mining and petroleum operations, medical and health care, and educational facilities.

The RPC Act has not undergone substantial revision since commencement in 1982. As a result, many of the standard administrative and enforcement provisions are outdated. The new Act will modernise radiation protection regulation in South Australia and will implement a progressive approach rather than a change in direction.

In addition, national commitments have been made via the Australian Health Ministers' Conference (AHMC) and the Council of Australian Governments (COAG) to implement a uniform national framework for radiation protection. The main national initiatives requiring implementation under the Act are the *National Directory for Radiation Protection* and the national *Code of Practice for Security of Radioactive Sources*.

Consultation on the draft *Radiation Protection and Control Bill 2013* (the 2013 Bill) was held from 1 October to 30 November 2013. This included two consultation forums and meetings with individual stakeholders. A total of 21 submissions were received and submissions were generally supportive of the purpose of the Bill and acknowledged the need for nationally consistent and more flexible legislation. The majority of submissions were received from industry associations, the mineral resources sector and law associations. While the 2013 Bill ultimately did not progress, a number of changes have been introduced to the 2018 Bill as a result of this consultation.

National Directory for Radiation Protection

Edition 1 of the National Directory was developed by the Radiation Health Committee and published in August 2004 by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). It was subsequently endorsed by the AHMC as the uniform national framework for radiation protection in Australia.

The purpose of the National Directory is to provide nationally uniform and agreed requirements for the:

- protection of people and the environment against exposure or potential exposure to ionising and non-ionising radiation
- safety of radiation sources, including provision for the national adoption of codes and standards
- clear regulatory statements for adoption by the Commonwealth, States and Territories into their legislation.

The AHMC agreed that following consideration and approval of the provisions of the National Directory, the regulatory elements would be adopted in each jurisdiction as soon as possible, using existing regulatory frameworks.

Some aspects of the National Directory, relating to the regulation of certain activities, have already been adopted into the Act via Part 12 of the *Statutes Amendment (Budget 2010) Act 2010*. This includes the requirement for a Facilities Licence (section 29A of the Act), Licence to Possess a Radiation Source (section 33A), and Accreditation of Third Party Service Providers (Division 3B).

The draft Radiation Protection and Control Bill 2018 (the Bill) includes a number of provisions to reflect the National Directory commitments and recommendations from the National Competition Policy Review of Radiation Protection Legislation. These amendments are summarised as follows:

- Review of legislation not exceeding 10 years.
- Objects of the Act, radiation protection principles and general duty consistent with requirements of the National Directory.
- Offence for registered owner to cause, suffer or permit unlicensed person to operate radiation apparatus.
- Offence for responsible person to cause, suffer or permit unlicensed person to use or handle radioactive substances.
- Adoption of documents forming part of National Directory by regulation.

Code of Practice for Security of Radioactive Sources

During 2006, the COAG agreed to a National Chemical, Biological, Radiological and Nuclear Security Strategy to provide a framework to strengthen and enhance Australia's existing arrangements. In addressing the security of radiological materials, the COAG also agreed to a number of recommendations. These include the establishment of a national regulatory scheme for the storage, possession, use and transport of certain radiological materials to minimise the risk of such materials being misused.

A significant component of the response to COAG's decision was the publication by ARPANSA of the *Code of Practice for the Security of Radioactive Sources* (Security Code). The purpose of the Security Code is to 'set out the security requirements to be implemented by persons dealing with a radioactive source in order to decrease the likelihood of the unauthorised access to, or acquisition of, the radioactive source by persons with malicious intent'. The Security Code classifies category 1, 2 and 3 sources as 'security enhanced radioactive sources', which require more stringent security requirements to be put in place.

In order to support this, the Bill refers to security of radioactive sources generally in the objects, and in clause 42 (suspension and cancellation of accreditations and authorities) to state that an accreditation or authorisation may be cancelled or suspended if the accreditation or authority relates to a security enhanced radioactive source and the holder of the accreditation or authority has failed to pass a security background check.

Most significantly, a new clause (47) has been included for 'power to protect security enhanced radioactive sources and high-risk radioactive sources and materials' to ensure that the Minister can restrict a person's access to security enhanced sources if there is evidence to indicate that they pose a threat to the security of the source. An offence has also been added for obtaining or accessing such a source or material without having undergone a security background check. More detailed requirements of the Security Code will be prescribed in the regulations, should the Bill be passed by Parliament.

Overview of the proposed amendments

Objects, principles and general duty of care

The current section 23 under the RPC Act provides the 'general objective'. This states that any person must, 'in carrying on an activity related to radioactive substances or ionising radiation apparatus, endeavour to ensure that exposure of persons to ionising radiation is kept as low as reasonably achievable, social and economic factors being taken into account'. This does not apply to exposure of a person while the person is undergoing radiotherapy.

The general objective was introduced at the inception of the Act and has not been amended since. While it has proved a useful guide in enforcement of the Act, it is in need of revision in order to provide more specific guidance on how the objective is to be applied.

Further, the National Directory also specifies that 'legislation must include the objective of protecting the health and safety of people and the environment from the harmful effects of ionising and non-ionising radiation'. It goes on to state that regulatory frameworks must follow specified principles and requirements to ensure that the objective of the legislation is met. These principles include, among others, the radiation protection principle, which:

... in regard to ionising radiation, includes justification of practices to ensure that benefits outweigh the detriment, limitation of radiation doses (see Schedule 1) to individuals from all practices, and optimisation of protection and safety so that individual doses, the number of people exposed and the likelihood of exposure are all kept as low as reasonably achievable, economic and social factors being taken into account¹.

The National Directory also specifies management requirements:

... to provide for responsible persons to establish a safety culture, establish quality assurance programs, reduce the probability of human error leading to accidents, make appropriate training and information available to staff, allocate sufficient resources to enable safety and security of radiation sources over their lifetime (including disposal), and provide the qualified expertise necessary to observe the requirements².

The 'Objects and principles' (Part 2 of the Bill) ensure that these national requirements are met, including supporting implementation of the Security Code, while the 'general duty of care' (clause 53) clarifies the application of the objects and principles to persons and the enforcement mechanisms. A person who breaches the general duty of care will not be, on account of the breach alone, guilty of an offence. However, compliance with the duty may be required through issuing a radiation protection order. A person will be guilty of an offence if he does not comply with the radiation protection order.

These provisions will apply to exposure of a person while the person is undergoing radiotherapy, since the general duty will now be linked to the radiation protection principle, ie exposure must be justified, limited and optimum. Therefore, exposure to radiation for therapeutic purposes will not be a breach of the general duty provided it follows the radiation protection principle.

Responsible persons

The National Directory states that 'a responsible person is to be primarily responsible for radiation protection and safety'³. The role of the responsible person is broadly outlined in the management requirements (as stated above) specified in the National Directory.

The National Directory provides that the responsible person:

... in relation to any radioactive source, ionising or non-ionising radiation apparatus, nuclear installation, prescribed radiation facility or premises on which unsealed radioactive sources are stored or used means the person:

¹ ARPANSA '[National Directory for Radiation Protection](#)' (2011), page 3

² ARPANSA '[National Directory for Radiation Protection](#)' (2011), page 3

³ ARPANSA '[National Directory for Radiation Protection](#)' (2011), page 3

- a having overall management responsibility including responsibility for the security and maintenance of the source, apparatus, installation or facility;
- b having overall control over who may use the source or apparatus, installation or facility; and
- c in whose name the source, apparatus, installation or facility, would be registered if this is required⁴.

Responsibilities throughout the Bill mirror the provisions of the National Directory. However, the term 'responsible person' is not used as, within a legislative context, the responsible person differs depending on the clause and more specific drafting is necessary to ensure culpability rests with the correct 'responsible' person.

Putting the onus on the responsible person, in addition to the owner, to ensure only licensed persons are operating radiation apparatus or using or handle radioactive materials, will assist in reducing the probability of human error, maintain the safety of radiation sources, and enhance accountability for radiation safety.

Licensing and registration reforms

The Bill seeks to consolidate existing management licensing and registrations under a single Radiation Management Licence – this provision will replace various licensing obligations under sections 23A, 24, 29, 29A, 30, 32 and 33A of the current Act. The Bill allows for persons engaged in multiple activities that require licences to obtain a single licence authorising all activities. All related registrations will also be able to be recorded on the licence so that all relevant licencing information is available in one document.

The Bill will also consolidate the two existing use licences (sections 28 and 31 of the current Act) under a single Radiation Use Licence in the same manner as above.

The Bill removes the requirement for the Minister to refer licence applications to the Radiation Protection Committee (RPC) which will save time in the licensing process in many instances. This has been included as there is already a discretionary power for the Minister to refer matters to the committee. Requiring advice on all licences can be a significant red-tape burden and potential delay for radiation users.

The transport of a radioactive source will require a licence under the Bill. The current Act stipulates various obligations for transporters through the regulations and also potentially requires the licencing of transporters through section 33A – Licence to possess a radiation source – although this has not been required of transporters to date. However, the new provision directly related to transport will allow for better targeted licensing requirements and also for better oversight of the *Code of Practice for the Safe Transport of Radioactive Material* (ARPANSA 2014).

Financial assurances are also proposed to assist with reducing government liability and to assist with the proper disposal and end-of-life management of radiation sources. The Minister may impose a condition on an authorisation requiring the authorisation holder to lodge a financial assurance, the discharge of which is conditional on certain requirements being complied with. It is not intended that financial assurances are used when government liabilities are already addressed through existing arrangements.

The Bill also introduces new provisions where exemptions issued by the Minister will be able to be applied to a person or class of persons, a radiation source or class of radiation source or a premises or class of premises. This will allow for greater flexibility in administering the legislation and greater options for reducing unnecessary regulatory burden.

Offence for causing radiation harm or serious radiation harm

The Act currently contains a series of specific offences set largely within the licensing and registration requirements, and relating to unauthorised use or handling. These offences are necessary; however they are more administrative in nature and are not linked to the harm or risk of harm that a breach of the Act might present.

⁴ ARPANSA [National Directory for Radiation Protection](#) (2011), pg 57

The penalty framework in the Bill draws on the approach taken in sections 79 and 80 of the *Environment Protection Act 1993* (EP Act), and sections 31–33 of the *Work Health and Safety Act 2013* which seek to penalise cases where a person has caused harm (actual or potential) or has been responsible for an unsafe environment.

Part 5 of the Bill provides new offences relating to causing radiation harm, with clause 50 relating to causing serious radiation harm, and clause 51 relating to causing radiation harm. In the 2013 Bill similar provisions were proposed using the term ‘radiation risk’. There was considerable feedback on the use of the term ‘risk’ within the 2013 Bill and it has been amended to better align with harm terminology used successfully in the administration of the EP Act.

The use of harm terminology will provide a risk-based approach to regulation in that the determination of an offence depends on the facts of each incident and focuses on the outcome or potential outcome and the risk to health or safety of a person or the environment. Importantly, this approach operates alongside a general defence (clause 86) where it is a defence if the person has done all that is reasonable and practicable to prevent the offence from occurring. This contrasts with the largely administrative nature of the offences currently provided for in the Act. The circumstances under which the offence is committed and the specific factors of the case will influence the compliance approach rather than non-compliance with set criteria, that may have a variable risk profile depending on the circumstances of the exceedence. Proving an allegation of actual or potential radiation harm will require the prosecution to convince the court that this has occurred.

As noted, the general defence under clause 86 applies to these offences. The general defence has been revised from what was put forward in the 2013 Bill to mirror the general defence in section 124 of the EP Act, which provides greater detail and refers to whether the defendant has taken all ‘reasonable and practicable measures to prevent the contravention’. If the defendant has complied with all of their legislative requirements and the conditions of their authorisation then there is a strong argument to be put that they took all reasonable and practicable measures. These provisions do not apply to matters where the harm is considered trivial [clause 51(4)].

The maximum penalty is the highest penalty that can be imposed by a sentencing court and must reflect the worst possible offence that could occur. The maximum penalties have been set by Parliamentary Counsel with consideration of the nature of the legislation, the particular offences they relate to and the precedent set by other comparable legislation. While the EP Act provides comparable offences, the maximum penalties prescribed are over 10 years old and the comparison is inappropriate.

Comparable offences exist in the New South Wales *Environment Operations Act 1997*. This Act sets maximum penalties for Tier 1 offences. A person is guilty of a Tier 1 offences if they wilfully or negligently:

- dispose of waste in a manner that harms or is likely to harm the environment (section 115),
- cause (or contribute to the conditions that cause) any substance to leak, spill or otherwise escape in a manner that harms or is likely to harm the environment (section 116), or
- cause any controlled substance (within the meaning of the *Ozone Protection Act 1989*) to be emitted into the atmosphere in a manner that harms or is likely to harm the environment (section 117).

The maximum penalties for a Tier 1 offence (section 119) are:

- In the case of a corporation – \$5 million for an offence that is committed wilfully or \$2 million for an offence that is committed negligently, or
- In the case of an individual – \$1 million or 7 years imprisonment, or both, for an offence that is committed wilfully or \$500,000 or 4 years imprisonment, or both, for an offence that is committed negligently.

Orders

The Bill seeks to introduce a number of new provisions to allow orders to be issued by the Minister. The Bill provides for three types of orders – radiation protection orders, reparation orders, and radiation protection cessation orders.

A radiation protection order would be issued in the event that a person is undertaking an action or activity in contravention with the Act (including the general duty of care) or a condition of an accreditation or authority (licence or

registration), in particular an action or activity which is causing harm to people or the environment through exposure to radiation.

A radiation protection order may include any condition necessary to eliminate or mitigate the risk of harm or actual harm being caused, such as requiring the person to take, discontinue or not commence specified actions.

A reparation order would be issued in the event that an action or activity has already taken place in contravention with the Act or a condition of an accreditation or authority, which has caused harm to people or the environment through exposure to radiation. A reparation order may include conditions requiring a person to undertake certain actions or make payment in order to make good any resulting damage to people or the environment. The Bill also provides for a reparation authorisation which may be issued to a third party in order to allow the third party to undertake the action necessary to make good on the resulting damage caused by the person.

A radiation protection cessation order may be issued to prevent or minimise harm or for dealing with stockpiled or abandoned material after the activities or operations have ceased.

These orders provide an alternative enforcement mechanism to strict liability prosecutions through the court. The sole purpose of an order is to mitigate and remediate harm rather than penalise the person. An order can achieve a more desirable outcome for all parties and ensure that actions are taken as soon as possible to stop further harm being caused.

Amended maximum penalties

The relatively consistent maximum penalty that most offences under the Act attract (\$10,000) is currently less than penalties in equivalent legislation that also seek to protect public health and safety.

In many instances the maximum penalty does not accurately reflect the severity of the offence. For example, if a person fails to follow a direction of the Minister in relation to the disposal of a radiation source after a licence or registration is suspended or cancelled, the maximum penalty is \$10,000. This is grossly inadequate for these types of offences given the risk that improper disposal creates and the financial gain of not following the direction may exceed the maximum penalty.

Similarly, the maximum penalty for issuing false or misleading information in relation to the Act is \$10,000. Again this is grossly inadequate considering the radiation harm that may result and the fact that the financial gain associated with issuing false or misleading information may also exceed the maximum penalty.

The RPC Act also does not make allowance for higher maximum penalties for body corporates than for a natural person. Given that the Act regulates many individuals as well as businesses which include multinational companies, it is inappropriate in many instances to apply one maximum penalty to all situations.

All maximum penalties in the Act have been revised.

Miscellaneous amendments to the RPC Act

Radiation Protection Committee

The composition and operation of the Radiation Protection Committee (RPC) will be amended whereby the RPC must consist of up to nine members, rather than the current 10, and members may have collective attributes of knowledge and practical experience.

One of the committee members nominated by the Minister must be a person selected by the Minister for Health to represent the interests of the Minister for Health on the Committee. This acknowledges the significant expertise that the public health system has in the use of radiation and in effective regulatory approaches.

Aligned with licensing reforms, discussed above, the function of advising the Minister on all licences has been removed as there is ability for the RPC to advise the Minister on complex licences within the broader function of advising the

Minister on various matters. The current Act prescribes four subcommittees that are not well utilised. The Bill will remove these standing sub-committees and prescribe that the Minister may establish sub-committees on matters as fit.

Enforcement of the Act

The Bill introduces civil penalties where a penalty may be negotiated in certain circumstances in lieu of court proceedings. Civil penalty provisions have been used successfully in the EP Act and were recently included in the *Local Nuisance and Litter Control Act 2016*. The ability to negotiate a penalty in lieu of court proceedings provides a reduced cost outcome to both the regulator and the alleged offender. The use of civil penalties under the EP Act is guided by an EPA policy that ensures they are only used in appropriate circumstances and not in circumstances where there is considerable public interest. It is intended that any use of civil penalties under the RPC Act would be guided by an updated EPA policy.

An offence to abandon a radiation source has been introduced. It will be an offence, in the absence of a reasonable excuse, to abandon an ionising radiation source or non-ionising radiation source of a prescribed class.

Review of administrative decisions

The Bill proposes that persons may apply to the South Australian Civil and Administrative Tribunal (SACAT), rather than the Supreme Court, for a review of an administrative decision. The SACAT is a low-cost jurisdiction specifically set up for hearing administrative matters.

The process of replacing the Act

Following consultation on the draft Bill, it will be amended as necessary and settled. Approval will then be sought to introduce the Bill to Parliament where it will be debated by both the Upper and Lower Houses. The Bill intends to repeal the current Act and replace it in its entirety. The legislation is known as a Bill until it is passed by both Houses of Parliament and given Royal Assent, at which point it is an uncommenced Act.

Given that it will be a new Act, as opposed to an amendment Act, new regulations will need to be drafted and consulted on. Once this process is complete, approval will be sought from Cabinet to make the new regulations.

A proclamation will be necessary to commence the Act. It is intended that the Act will commence once the regulations have been made and the regulated community has had a suitable period to become familiar with the new Act.

Provision of comments on the draft Bill

Comments on the draft Radiation Protection and Control Bill 2018 are to be submitted by **COB, Friday, 15 February 2019** to:

Radiation Protection and Control Bill
Environment Protection Authority
GPO Box 2607
ADELAIDE SA 5001
Email: epainfo@sa.gov.au (mark subject as Radiation Protection and Control Bill)

All submissions received by the EPA during the consultation period will be acknowledged and treated as public documents unless provided in confidence, subject to the requirements of the *Freedom of Information Act 1991*, and may be quoted in EPA reports.

Further information

Legislation

[Online legislation](#) is freely available. Copies of legislation are available for purchase from:

Service SA Government Legislation Outlet
Adelaide Service SA Centre
108 North Terrace
Adelaide SA 5000

Telephone: 13 23 24
Facsimile: (08) 8204 1909
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