

Radiation Regulation in Australia:

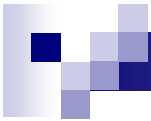
**National Directory for Radiation Protection**

# Australia



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Australia is an island continent – seemingly one country but, mainly because of its constitution, it is actually comprised of nine independent jurisdictions as far as radiation related matters are concerned.

The jurisdictions are:

Australian Capital Territory  
Commonwealth (ARPANSA)  
New South Wales  
Northern Territory  
Queensland  
South Australia  
Tasmania  
Victoria  
Western Australia



## Background

Apart from the Commonwealth which only commenced regulation of itself in 1999, all other jurisdictions commenced regulating dealings with radiation sources in the late 1950s (about 1957 onwards).

Their radiation safety and control legislation started from, more or less, the same starting point – a model Act...

...but, in the subsequent years, there was significant divergence from this common starting point and this non-uniformity in the requirements is now causing difficulties; e.g. when moving from one jurisdiction to another.



## **National lack of uniformity**

**Question:** How do we fix this problem?

**Answer:** Through the introduction of the National Directory for Radiation Protection – a nationally adopted strategy to achieve uniformity.



## Structures for achieving uniformity

- The Australian Radiation Protection and Nuclear Safety Act 1998 commenced on 5 February 1999.
  
- Amongst other things, the ARPANS Act establishes the following:
  - The Chief Executive Officer of the Australian Radiation Protection and Nuclear Safety Agency
  - The Radiation Health Committee
  
- In section 15 of the Act, the first mentioned function of the CEO of ARPANSA is:  
“to promote uniformity of radiation protection and nuclear safety policy and practices across jurisdictions of the Commonwealth, the States and the Territories”



## National Directory for Radiation Protection

The National Directory for Radiation Protection is a concept which, amongst other things, recognises and acknowledges that:

- there are nine jurisdictions in Australia in the area of radiation protection
- each jurisdiction values its independence and sovereignty
- each jurisdiction places significant value on a move towards nationally uniform legislative outcomes
- at a particular time, the range of matters which will reasonably be able to be nationally agreed will be limited
- despite the degree of non-uniformity at the commencement of this process, there is substantial agreement between the jurisdictions on the matters that require control, the types of controls required and the desired outcomes



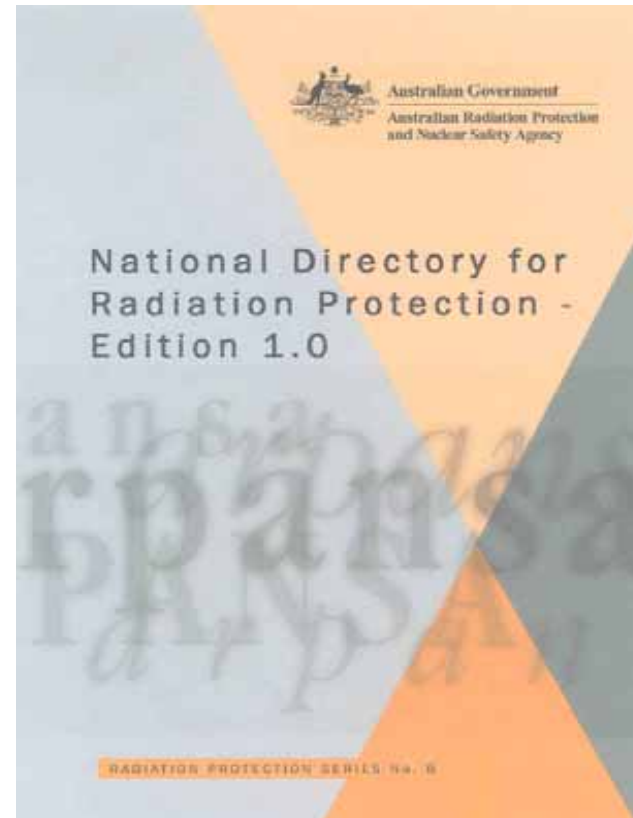
## National Directory for Radiation Protection

The National Directory for Radiation Protection is in the form of a document which will be updated from time to time.

- Editions of the National Directory for Radiation Protection will be prepared building upon previous versions with the goal of moving towards national uniformity in a stepwise fashion.
- Each edition of the National Directory for Radiation Protection is prepared by the Radiation Health Committee after establishing a nationally agreed suite of achieved or foreseeably achievable matters.
- Once an Edition of the National Directory for Radiation Protection has been agreed by the Australian Health Ministers' Conference, the government of each jurisdiction has undertaken to implement it as soon as is practicable.

# National Directory for Radiation Protection

Edition 1 of the National Directory for Radiation Protection was published by ARPANSA in 2004 and it was agreed by AHMC in 2005.





## National Directory for Radiation Protection

**Part A** sets out the agreed overall framework for radiation protection in Australia. It is expected that jurisdictions will adopt these principles as reviews of legislation come forward.

Implementation of this part will ensure that :

- the legislation in all jurisdictions will have the ability to put the same minimum set of controls in place
- irrespective of whether a control is already in place, the outcomes of the imposition of the controls are similar in all jurisdictions
- the mechanisms for controlling dealings with radiation are similar in all jurisdictions

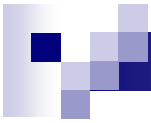


## National Directory for Radiation Protection

**Part B** of the Directory contains the uniform regulatory elements, which are to be adopted by each jurisdiction, within its regulatory framework.

Implementation of this part will ensure that each jurisdiction will

- regulate the matters mentioned in this part and not regulate matters exempted or excluded in this part (the scope of regulation)
- require a person in possession of radiation sources (the responsible person) to be specifically authorised to possess the sources
- require all radiation sources mentioned in the Directory to be registered
- adopt specified competency requirements or pre-requisites for people in stated professions or occupations in relation to their use of specified types of radiation sources
- adopt Codes of Practice and Standards referenced in the Directory
- participate in the national incident reporting framework



# National Directory for Radiation Protection

**Part C** of the Directory contains guidance that will assist regulators in adopting consistent approaches, but is not regulatory in nature.

The National Directory also has Schedules and Annexes.

**Schedules** to the Directory provide additional detailed requirements that form an integral part of the uniform regulatory elements of the Directory.

**Annexes** to the Directory provide advisory material and background information on the provisions of the Directory.



## NDRP – Part A in detail

The regulatory frameworks in each Australian jurisdiction must follow the principles and requirements set out here, to ensure that the objective of the legislation is met:

- **Radiation protection principles** including justification of practices to ensure that benefits outweigh the detriment, limitation of radiation doses 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 account.
- **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 requirements.



## NDRP – Part A in detail

The regulatory frameworks in each Australian jurisdiction must follow the principles and requirements set out here, to ensure that the objective of the legislation is met:

- **Technical requirements**, such as shielding design and interlocks as necessary, to ensure that radiation sources remain within control, and that they are secure from theft or damage.
- **Processes for verification of safety and security**, which involve safety assessments to identify and determine the magnitudes of radiation exposures during normal operation and accidents, and to assess the provisions for protection, safety and security. Procedures and equipment required for monitoring operations and verifying compliance with safety requirements and standards must be established and available. Appropriate records and reports must be maintained.
- **Risk management principles**, which include a broader evaluation of risk assessment and take into account not only scientific data, but also the social and economic considerations.
- **Intervention actions** for accidental or abnormal exposure situations requiring protective action to reduce or avert radiation exposures, or their likelihood.



## **NDRP – Part A in detail**

These principles and requirements are constructs emanating from RPS1,

*Recommendations for limiting exposure to ionizing radiation (1995) (Guidance note [NOHSC:3022(1995)]) and National standard for limiting occupational exposure to ionizing radiation [NOHSC:1013(1995)]*



## **NDRP – Part A in detail**

Each jurisdiction's legislation must provide the following powers and functions to the regulator:

- advise the Minister on radiation protection and nuclear safety matters;
- set standards for radiation protection and the safety and security of radiation sources;
- assess applications for authorisations against criteria specified in the Act or regulations;
- grant, refuse, vary, revoke or suspend authorisations, and impose conditions on these;
- grant exemptions from regulatory requirements and determine conditions for exemptions;
- ensure a system of periodic inspections, documentation and reporting to verify compliance with regulatory requirements;
- enforce compliance with regulatory requirements;
- require safety assessments and environmental assessments where appropriate;



## **NDRP – Part A in detail**

Each jurisdiction's legislation must provide the following powers and functions to the regulator:

- accredit persons or classes of persons to assess compliance with the requirements of the legislation, and set the conditions to which they should be subject;
- control the categories of non-ionizing radiation apparatus specifically identified in Schedule 2 of the Directory;
- maintain a register of radiation sources, including requirements for amendment of the register;
- plan for, and give directions in the case of, a nuclear or radiological emergency;
- require notification of radiation incidents to the regulator;
- investigate radiation incidents, and provide reports to ARPANSA for inclusion in the Australian Radiation Incidents Register;
- promote or conduct studies, investigations and research associated with radiation protection and nuclear safety, including public health and safety and environmental considerations; and
- prepare an annual report for tabling before the Parliament.



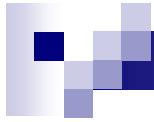
## Implementation of NDRP – Edition 1

### **Question:**

How well is the jurisdiction you live in keeping to its commitment to implement the National Directory for Radiation Protection as soon as is practicable?

### **Answer:**

We do not know, but the Radiation Health and Safety Advisory Council is going make this assessment in the near future.



The story continues...