

## Our Agency



# Our agency

## Protecting Australians and the environment from the harmful effects of radiation

### Authority

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) operates under the *Australian Radiation Protection and Nuclear Safety Act 1998* (the ARPANS Act). The ARPANS Act allows the Chief Executive Officer (CEO) to engage staff to assist the CEO perform his statutory functions. Together, the CEO and staff constitute a statutory agency for the purposes of the *Public Service Act 1999* and a prescribed agency under the *Financial Management and Accountability Act 1997* within the Health and Ageing Portfolio.

### Responsible ministers and portfolio

The Parliamentary Secretary to the Minister for Health has ministerial responsibility for ARPANSA. Our Parliamentary Secretary for this financial reporting period is The Hon Catherine King, MP.

### Funding basis

ARPANSA receives funding through appropriations received by the Department of Health and Ageing.

ARPANSA's own sourced income comes from the sale of scientific services such as the Personal Radiation Monitoring Service, work performed under the Comprehensive Nuclear-Test-Ban Treaty Organization contracts to build, operate and maintain monitoring stations, and licence application fees and annual charges associated with ARPANSA's regulatory activities.

### Our outcome

Protection of people and the environment through radiation protection and nuclear safety research, policy, advice, codes, standards, services and regulation.

### Our people

As at 30 June 2012 ARPANSA employed a total of 139 ongoing and 14 non-ongoing staff. Our people are specialists in nuclear and medical physics, radiation sciences, chemistry, biological sciences, security and emergency preparedness as well as communications, government policy, law, finance and human resources.

*'The protection of the public and environment from radiation requires a risk-based approach that takes account of both safety and security. It is also necessary to: provide appropriate and effective information on exposure to all sources of ionising and non-ionising radiation; interact with and inform the Australian community about the risks associated with exposure to radiation; and, promote the implementation of radiation safety measures that optimise the protection of the public and the environment.'*

ARPANSA Strategic Directions 2012-2016:p.3

### Where we work

ARPANSA's staff are spread across three campuses: Miranda in New South Wales, Yallambie in Victoria and Canberra in the Australian Capital Territory.

### Our mission

To assure the protection of people and the environment from the harmful effects of radiation.

### Our vision

Radiation safety is appropriately considered in societal decision-making which rests on sound science, with radiation safety given appropriate weight, guiding the use of precaution as necessary.

Radiation safety is consistently applied, across jurisdictions and across activities, in a manner that is commensurate with the risk.

Radiation safety in Australia is current international best practice and ARPANSA takes a lead role in the enhancement of the international radiation safety framework, promoting and implementing best practice nationally, in the region and internationally.

### Key areas

ARPANSA delivers outcomes for Australian society in a set of Key Areas, covering all agency activities (*ARPANSA Strategic Directions 2012-2016*). Each Key Area is governed by strategies that remain long-term although flexible and adaptable. The strategies are implemented through activities that are defined yearly and form the basis for the Portfolio Budget Statement and ARPANSA's Business Plans.

### Performance reporting

ARPANSA's success in achieving its outcome is measured against specific deliverables and key performance indicators outlined in the *Portfolio Budget Statements 2011-12* and performance is described in Section 3.

# Our history

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*Prior to 1998 Commonwealth radiation sources and practices were not regulated at a Commonwealth level.*

### 1929

The Australian Radiation Laboratory (ARL) of the Commonwealth Department of Health is established as the Commonwealth Radium Laboratory, responsible for providing advice to Government and the community on the health effects of radiation, and for undertaking research and providing services in this area.

### 1984-1985

ARL conducts preliminary studies on the former British atomic test sites at Maralinga indicating that contamination levels were significantly higher than previously reported. ARL's findings convinces the Australian Government to set up a technical assessment group in 1986 to oversee further technical studies of the site and to advise on rehabilitation options.

### 1992

The Nuclear Safety Bureau (NSB) is established and operated under Part VIIA of the *Australian Nuclear Science and Technology Organisation Act 1987* and was responsible for regulating the HIFAR and Moata research reactors at Lucas Heights in Sydney.

### 1993

ARL scientific experts commence work on the Maralinga Rehabilitation Technical Advisory Committee (MARTAC) – a whole of Government initiative – to evaluate radiological risks and develop and effective clean-up and land remediation of the contaminated sites so that the risk to

potential inhabitants from exposure to radioactive contamination would be within safe limits.

### 1994-2000

Work commences on the MARTAC Project during which at each stage, ARL and later ARPANSA, took comprehensive measurements. The project consisted of defining the clean-up boundaries at the sites contaminated with plutonium, followed by bulk removal of contaminated soil from the three sites and burial within purpose-built burial trenches. Completion of the project resulted in much lower levels of radiation than was predicted in the original MARTAC report.

*'As the Commonwealth regulator, ARPANSA is the Australian independent centre of excellence in radiation protection and nuclear safety. Our mandate covers ionising and non-ionising radiation, safety and security of nuclear installations and radioactive sources, and preparedness and response to accidents or malicious acts involving radiological hazards.'*

ARPANSA Strategic Directions 2012-2016: p.1

### 1996

Responsibility for the Australian primary standard of absorbed dose in medical radiation exposures is transferred to ARL with the agreement of Australian Nuclear Science and Technology Organisation (ANSTO), and as provided for by the *National Measurement Act 1960*.

### 1997

The Federal Government announces that it will combine the ARL and the NSB and establish ARPANSA as a new regulatory body with underpinning legislation - the *Australian Radiation Protection and Nuclear Safety Act 1988* (the ARPANS Act).

### 1998

The ARPANS Bill is passed by both houses on Thursday, 10 December 1998 creating ARPANSA.

### 5 February 1999

The ARPANS Act enters into force.

### 17 March 1999

ARPANS Regulations enter into force.

### 15 April 1999

Dr John Loy is appointed as the first CEO of ARPANSA.

### 22 April 1999

The Australian Health Ministers' Advisory Council accepts proposals for the development of the *National Directory for Radiation Protection* which is a vehicle for the delivery of national uniformity in radiation protection across all states and territories.

### 1999

The National Competition Policy Review agrees on a policy review of radiation control frameworks across all states and territories.

The National Health and Medical Research Council ceases publishing the Radiation Health Series and hands responsibility for revision to ARPANSA. Future documents would be developed in the new Radiation Protection Series.

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### 1 June 1999

ARPANSA sets up the International Monitoring System (IMS) which includes monitoring stations in Perth and Melbourne forming part of the IMS global network required under the terms of the *Comprehensive Nuclear-Test-Ban Treaty*.

### 2000

ARPANSA authorises the Department of Resources, Energy and Tourism to operate the Maralinga site as a controlled facility under the ARPANS Act.

### 5 April 2002

ARPANSA issues a licence to ANSTO to construct a new research reactor, the Open Pool Australian Light-Water Reactor (OPAL) to replace the ageing HIFAR reactor at ANSTO.

### 14 July 2006

OPAL is issued with an operating licence.

### 12 August 2006

OPAL commences operations.

### 25 June to 6 July 2007

The International Atomic Energy Agency (IAEA) Integrated Regulatory Review Service (IRRS) commences a comprehensive peer review and appraisal service of ARPANSA's operations focusing upon the effectiveness of ARPANSA's regulatory infrastructure in nuclear, radiation, radioactive waste and transport safety.

### 2008

Dr John Loy retires as CEO of ARPANSA and is replaced by interim Acting CEO Mr Peter Burns, a senior health physicist and Branch Director, Environmental and Radiation Health Branch, ARPANSA.

### October 2008

ARPANSA installs an Elekta Synergy Platform medical radiotherapy treatment linac to develop absorbed dose standards at megavoltage energies and to provide direct calibration of reference ionisation chamber dosimeters.

### 18 December 2009

ARPANSA CEO and senior scientists attend the formal handback ceremony of Maralinga lands to Traditional Owners, the Maralinga Tjarutja.

### March 2010

Dr Carl-Magnus Larsson is appointed as the CEO of ARPANSA.

### 1 July 2010

The Australian National Radiation Dose Register (ANRDR) is established to collect, store, manage and disseminate records of radiation doses received by workers in the course of their employment in a centralised database. The ANRDR is a system for uranium mining workers to be able to request their individual dose history record.

### 4 February 2011

The Australian Clinical Dosimetry Service (ACDS) which is a joint initiative between the Department of Health and Ageing and ARPANSA is officially launched by the Parliamentary Secretary for Health

and Ageing, the Hon Catherine King, MP at ARPANSA's Yallambie campus. The ACDS was created to audit radiotherapy doses to provide an integrated national approach to promoting safety and quality in radiotherapy and lead to further improvements in patient treatment outcomes.

### 11 March 2011

Immediately following the Great East-Japan Earthquake and Tsunami, ARPANSA commences comprehensive assessment of the situation to advise the Government and the Australian public on radiation protection and nuclear safety issues associated with the nuclear emergency.

### May 2011

Formal organisational restructure of ARPANSA rolled out.

### May 2011

Decommissioning of ANSTO's Moata reactor which was a first for Australia. ARPANSA is satisfied that radioactive waste from the decommissioning process had been appropriately transferred to an existing waste licence and that there was no residual danger from radiation in the building that had housed the reactor.

### December 2011

The IAEA IRRS follow-up mission concludes that most recommendations and suggestions from the 2007 IRRS review have been addressed by ARPANSA and that ARPANSA should be commended for this accomplishment.

### February 2012

Department of Health and Ageing commences a review of the ARPANS Act.