

Appendix 8: Operations of the Radiation Health and Safety Advisory Council and Committees

Operations of the Radiation Health and Safety Advisory Council

During 2014-15, the Radiation Health and Safety Advisory Council (the Council) met on two occasions (21-22 August and 13-14 November 2014) and considered a wide range of radiation protection and nuclear safety topics. Summaries of the meetings as well as other relevant council information can be found at: www.arpansa.gov.au/AboutUs/Committees/rhsacmt.cfm.

Membership of the Council:

Council's 2012-14 triennium ended on 31 March 2015, and a new Council (with six new members and six members reappointed), as listed below, was appointed by the Minister in April 2015.

- *Chair:*
Dr Roger Allison (QLD), Executive Director Cancer Care Services, Royal Brisbane and Women's Hospital
- *CEO of ARPANSA:*
Dr Carl-Magnus Larsson (NSW)
- *Person to represent the interests of the general public:*
Ms Geraldine Robertson (ACT), an experienced consumer advocate with a working knowledge of the consumer-related radiation protection issues addressed by the Council
- *Radiation Control Officers:*
 - » Mr Keith Baldry (SA), Director, Regulation and Compliance, SA Environment Protection Authority
 - » Mr Simon Critchley (QLD), Director, Radiation Health, Queensland Health
- *Nominee of the Chief Minister of NT:*
Dr Stephen Skov (NT), Community Physician, Centre for Disease Control, Department of Health of the NT
- *Other Members:*
 - » Mr Niall Byrne (VIC), Creative Director of Science in Public
 - » Dr Jane Canestra (VIC), Medical practitioner and emergency physician with expertise in the health aspects of radiological emergencies

- » Prof Adele Green (QLD), Head, Cancer and Population Studies Group, Queensland Institute of Medical Research
- » Mr Frank Harris (QLD), Chief Adviser Radiation Governance and Product Stewardship, Rio Tinto Uranium
- » Ms Melissa Holzberger (QLD), Director and Principal – Sloan Holzberger Lawyers
- » Prof Pamela Sykes (SA), Professor Preventive Cancer Biology, Flinders University
- » Dr Melanie Taylor (NSW), Senior Research Fellow at the Centre for Health Research, University of Western Sydney.

During 2014-15, Council considered and discussed:

- Community submissions on various issues including smart meters and Wi-Fi in schools.
- ARPANSA's current activities in relation to non-ionising radiation research, services and advice, and on emerging issues in this area.
- The need to provide advice on the application of the Precautionary Approach and the Linear-No-Threshold approach to regulation.
- The outcome of an expert panel review of ARPANSA publication, *Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3 kHz to 300 GHz (2002) (RPS 3)*, which found that while RPS 3 remains fit for purpose there are opportunities for improvement. Both the Radiation Health Committee and ARPANSA have committed to begin reviewing RPS 3 in 2015.
- The need to set safety limits for electromagnetic energy (EME) based on scientific information, noting that when limits are arbitrary the focus moves to compliance rather than optimisation. Precaution and radiation protection are best driven by actively addressing safety rather than by just meeting limits.

Members met with:

- Dr Emilie van Deventer from the World Health Organization (WHO), who delivered a presentation on the role of the WHO in relation to both ionising and non-ionising radiation protection, specifically in shaping research agendas, setting norms and standards and monitoring health. Dr van Deventer conveyed

the WHO's appreciation of ARPANSA's work as a WHO Collaborating Centre, raising the possibility of ARPANSA acting as a 'Radiation Champion' for the WHO and emphasising the need for WHO Member States to continue to highlight the importance of radiation as an ongoing health issue.

- Representatives from the Australian Mobile Telecommunications Association (AMTA) on the protections in place at mobile telecommunications radio base station sites ('towers') in Australia and of the information on these sites that is available to the public. Members discussed the processes in place to ensure that industry complies with RPS 3. The level of information provided in Australia is highly advanced in both quality and accessibility compared to most other countries. AMTA emphasised that the current detail of information available to the public is made possible by the mobile telecommunications carriers' commitment to sharing information.
- Two members of the public made a presentation to inform Council of their concerns about the potential risk of long term, low level exposure to electromagnetic radiation (EMR) or EME. They made a number of recommendations to Council, particularly in relation to the current EME exposure standard RPS 3, the state of scientific research in this area and the application of the Precautionary Principle. Members thanked the presenters for their attendance and presentations. Further dialogue and working together to achieve the common goal of protection of children was encouraged.

The membership of the council for the period 1 July to 31 March 2015 was:

- *Chair:*
Professor Ray Kemp (VIC)
- *CEO of ARPANSA:*
Dr Carl-Magnus Larsson (NSW)
- *Person to represent the interests of the general public:*
Emeritus Professor Ian Lowe (QLD)
- *Radiation Control Officers:*
 - » Mr Keith Baldry (SA)
 - » Mr Simon Critchley (QLD)
- *Nominee of the Chief Minister of NT:*
Dr Stephen Skov (NT)

- *Other Members:*
 - » Dr Roger Allison (QLD)
 - » Ms Jill Fitch (SA)
 - » Dr Brad Cassels (VIC)
 - » Dr Denise Wheeler (QLD)
 - » Ms Melissa Holzberger (QLD)
 - » Mr Frank Harris (QLD)
 - » Ms Sylvia Kidziak AM (NSW)

Operations of the Radiation Health Committee

During 2014-15, the Radiation Health Committee (RHC) met on three occasions on 19 November 2014, 25 March 2015 and 24 June 2015. Minutes of the meetings can be found at www.arpansa.gov.au/AboutUs/Committees/rhc.cfm.

The RHC is appointed on a three year term. The 2012-14 triennium ended in December 2014.

The Chair and Members for the 2012-14 triennium were:

- *Chair:*
Mr Keith Baldry (SA), Director, Regulation and Compliance, SA Environment Protection Authority
- *CEO of ARPANSA:*
Dr Carl-Magnus Larsson (NSW)
- *Radiation Control Officers:* (each state and territory)
 - » Mr Ross Bevan (ACT), Manager Radiation Safety, Health Protection Service, ACT Health
 - » Associate Professor Brad Cassels (VIC), Expert Advisor Radiation, Department of Health and Human Services
 - » Mr Simon Critchley (QLD), Director, Radiation Health, Queensland Health
 - » Mr Len Potapof (NSW), Manager Radiation Regulation Unit, NSW Environment Protection Authority
 - » Mr Russell Robinson (NT), Manager Radiation Protection, Department of Health
 - » Dr Barbara Shields (TAS), Senior Health Physicist, Department of Health and Human Services
 - » Ms Hazel Upton (WA), Managing Health Physicist, Radiation Health Unit, Department of Health
- *Nuclear Safety Committee representative:*
Mr Robert Lyon (QLD), nuclear safety expert, formerly with AECL (Canada) and the IAEA.

- *Person to represent the interests of the general public:*
Dr Peter Karamoskos (VIC), radiologist and nuclear medicine specialist
- *Other members:*
 - » Dr Roslyn Drummond (VIC), Deputy Director of Radiation Oncology, Peter MacCallum Cancer Centre
 - » Dr Andrew Kerans (ACT), Adjunct Associate Professor of Engineering, James Cook University (QLD)

For the 2015-17 triennium, Dr Roslyn Drummond was appointed as Chair of the Committee, replacing Mr Keith Baldry; Mr Leif Dahlskog, Senior Health Physicist, was appointed as the Radiation Control Officer representing WA, replacing Ms Hazel Upton; Dr Bruce Hocking, consulting specialist in occupational medicine, was appointed as an other member, replacing Dr Andrew Kerans. All other members were reappointed.

During the period significant progress was made on the Code for Radiation Protection in Planned Exposure Situations and the Guide for Radiation Protection of the Environment with drafts released for public consultation. Work commenced on codes for Radiation Protection in Existing Exposure Situations and Emergency Exposure Situations. Work also commenced on a code for Management Systems and Safety Culture and a review of the *Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation* (RPS 14).

A Consultation Regulatory Impact Statement on the use of Intense Pulsed Light sources (IPLs) and Lasers for Cosmetic or Beauty Therapy was released for public consultation in June 2015.

Amendment 7 of the NDRP for disposal of radioactive waste by the user was completed and is progressing through the Australian Health Ministers' approval process.

The RHC recommended that the CEO withdraw the existing National Health and Medical Research Council guidance on ELF exposure and instead refer to the International Commission on Non-Ionizing Radiation Protection (ICNIRP) *Guidelines for Limiting Exposure to Time-Varying Electric and Magnetic Fields (1 Hz -100 kHz)* on the ARPANSA website. The ICNIRP ELF guidelines are aimed at preventing the

established health effects resulting from exposure to ELF EMF and are consistent with ARPANSA's and the RHC's understanding of the scientific basis for the protection of people from exposure to ELF EMF. RHC 15 *Code of practice for the safe use of microwave diathermy units (1985)* and RHC 16 *Code of practice for the safe use of short wave (radiofrequency) diathermy units (1985)* were also withdrawn as the technology is largely outdated.

The RHC agreed to suspend the project to develop Australian specific NIR Fundamentals and supported ARPANSA's participation in the World Health Organisation (WHO) project to develop International Basic Safety Requirements for Non-Ionising Radiation, including Fundamental Safety Principles.

A Position Statement on Regulatory Expectations for users of radiation sources seeking to obtain authorisations in more than one jurisdiction was endorsed by ARPANSA and the radiation regulatory bodies of New South Wales, Northern Territory, Queensland, South Australia, Tasmania and Victoria. The document sets out what applicants can expect when seeking authorisations (licences or registrations) for the same activity in multiple jurisdictions. It endeavours to promote nationally uniform radiation protection outcomes and minimise unnecessary regulatory burden.

To further assist in the promotion of national uniformity, a Stakeholder Feedback Form was endorsed by the RHC and published on the ARPANSA website. The form invites businesses to advise the CEO of difficulties encountered when seeking authorisations in more than one jurisdiction. ARPANSA does not undertake to resolve individual issues but will raise them with the relevant authority. Information collected will be used to recommend improvements to reduce regulatory burden and increase efficiency.

The CEO of ARPANSA announced his intention to host an Integrated Regulatory Review Service (IRRS) Mission in 2018 and invited state and territory regulators to include their regulatory activities in the scope of the peer review. Responses to the invitation are still being received.

Operations of the Nuclear Safety Committee

During 2014-15, the Nuclear Safety Committee (NSC) met on three occasions: 31 October 2014, 5-6 March 2015 and 19 June 2015. Summaries of the meetings can be found on the ARPANSA website at www.arpansa.gov.au/AboutUs/Committees/nscmt.cfm.

The NSC is appointed on a three year term. The 2012-14 triennium ended in December 2014.

The Chair and members for the 2012-14 triennium of the NSC for the 2012-14 triennium were:

- *Chair:*
Dr Tamie Weaver (VIC), Technical Director - Hydrogeology, environmental resources management consultancy
- *CEO of ARPANSA:*
Dr Carl-Magnus Larsson (NSW)
- *Radiation Health Committee representative:*
Dr Barbara Shields (TAS) Senior Health Physicist, Department of Health and Human Services
- *Local Government representative:*
Mr Ian Drinnan (NSW) Principal Environmental Scientist, Sutherland Shire Council
- *Person to represent the interests of the general public:*
Mr Christopher Tola (NSW) Grants Officer, local government authority
- *Other members:*
 - » Ms Kerrie Christian (NSW), metallurgist with background in governance, safety and reliability
 - » Dr Rob Lee (ACT), human factors, systems safety and risk management expert with experience of aviation and other high technology industries
 - » Mr Robert Lyon (QLD), nuclear safety expert, formerly with AECL and the IAEA
 - » Mr Don Macnab (NSW), former Director, Regulatory and Policy Branch, ARPANSA
 - » Em. Prof. Ian Polmear (VIC), Monash University, Materials Science, metallurgist with expertise in nuclear and other high technology industries
 - » Mr Peter Wilkinson (ACT), consultant in safety management and safety culture in hazardous industries

Em Prof Ian Polmer retired from the NSC at the end of the 2014. All other members were re-appointed

for the 2015-17 triennium together with the following new members:

- » Mr Tony Irwin (NSW), Engineer with experience in nuclear power and research reactor operations; commissioning; training and regulatory interaction
- » Mr Peter Karamoskos (VIC), practicing radiologist and nuclear medicine specialist.

Key topics reviewed by the Nuclear Safety Committee during this financial year included the following:

- Consideration and advice regarding the periodic safety review of the OPAL Reactor.
- Consideration and advice regarding the licence application for the Little Forest Legacy Site which, from 1960 to 1968, was used by the Australian Atomic Energy Commission as a disposal site for low level radioactive waste. Members provided advice on the social and technical issues associated with licensing legacy sites.
- Progress and developments towards the establishment of a National Radioactive Waste Management Facility. The NSC concentrated on the regulatory role in stakeholder communication and the need to clearly outline the science of waste management.
- The ARPANSA development of holistic safety tools which may be used by the regulator and licence holders to assist them to improve the safety of their operations. NSC members provided advice on these tools.
- The update of ARPANSA's Regulatory Delivery Model which set out how ARPANSA will undertake its regulatory functions from 1 January 2015. The conduct of inspections was discussed, including the benefits and disadvantages of announced and unannounced inspections. The NSC considered the updated inspection approach to be efficient and effective.
- Various aspects of organisational safety, including licence holder arrangements regarding change management, internal review processes and implementation of changes. In this regard the NSC also reviewed the implementation of ARPANSA's guidance on when a change has significant implications for safety.

- Priorities for the Harmonised Radiation Protection Series. This topic concerns a project for the adoption of the radiation protection standards from the International Atomic Energy Agency (IAEA) for use in Australia. A number of Committee members are actively involved in working groups that are considering the suitability of these standards for use within the Australian environment. One such example is the use of IAEA General Safety Requirements Part 2 – Leadership and Management for Safety.
- The potential regulatory implications arising from the South Australian Nuclear Fuel Cycle Royal Commission. The NSC has undertaken to provide advice in regard to the options for a future nuclear regulator if the nuclear industry expands. Topics discussed included the functional structure of the regulatory body; the jurisdictional scope, the jurisdiction (state/territory and Commonwealth); the required regulatory capacity and capability.