



Radiation Health and Safety Advisory Council – Meeting Minutes

Dates:	24 – 25 November 2022
Time:	8:00 AM – 5:00 PM
Location:	QIMR Berghofer, Brisbane, Queensland
Present:	Dr Roger Allison (Chair), Mr Keith Baldry, Mr John Piispanen, Prof Adele Green, Prof Mel Taylor, Prof Pam Sykes, Dr Trevor Wheatley, Ms Melissa Holzberger, Dr Jane Canestra, Mr Jim Hondros, Dr Gillian Hirth (CEO of ARPANSA), Dr Peter Karamoskos, Dr Hugh Heggie
Invitees:	A/Prof Catherine Olsen, Nathan Wahl, Jim Scott, Rick Tinker, Ben Paritsky, Ryan Hemsley, Adrian Hawley, Marcus Grzechnik, Katie Volter, Kelly Edser, Bec Sykes, Rohan Mate, Chennell Allan, Simon Critchley, Di Bretherton, Brendin Bloye
Absent:	Tone Doyle, Yvonne Pavey
Secretariat	James Wheaton, Adrian Hawley

1 – Tour of Queensland State Disaster Coordination Centre, Kedron Park

The Council toured the Queensland State Disaster Coordination Centre (SDCC) and discussed Queensland’s Emergency Preparedness and Response to gain an understanding of interagency interactions and considerations for emergency response in practice in Queensland.

2 – Meeting open and housekeeping

The Chair opened the formal meeting respectfully acknowledging the Traditional Owners and Custodians of the land on which the meeting was held, and paying respects to their Elders, past and present. No conflicts of interest were reported. The minutes from the meeting of 18 August 2022 were noted (pending final review out of session before publication) and dates on actions from the previous meeting were reviewed, including ongoing tasks which were carried over. No correspondence was noted.

Task: Finalise minutes from August 2022 Council meeting (31/12/2023)

3 – Update from ARPANSA CEO on the activities of ARPANSA

The CEO of ARPANSA thanked Council members for attending the first in-person meeting since her commencement as CEO and gave an update to the Council on the activities of the Agency. An overview was given on the activities of the Radiation Health Committee (RHC), including defining

standards for dosimetry providers, working towards revision of some Radiation Protection Series (RPS) documents, and consideration of workforce challenges for radiation regulation in Australia.

An overview was also given on the activities of the Nuclear Safety Committee (NSC) ([NSC Minutes](#)) including an update on actions taken by the Australian Nuclear Science and Technology Organisation (ANSTO). The NSC also discussed workforce challenges for nuclear regulation, including ARPANSA's engagement with peers in the United Kingdom (UK) to understand training methods used for graduates coming in to the UK Office for Nuclear Regulation (ONR).

Council noted that the inaugural liaison forum was held between ARPANSA and the Australian Radioactive Waste Agency (ARWA), while acknowledging that ARWA is not yet a regulated entity and that there are ongoing legal challenges related to the siting of the proposed facility. The initial discussions focused on ARWA's safety case development and regulatory expectations. The CEO advised Council that ARPANSA has paused any further community engagement activities with the Kimba community until the ongoing judicial review is resolved. Council discussed ARPANSA's options for resuming community engagement with the purpose to clarify ARPANSA's role as a regulator, and to understand community expectations for any future consultation. Council noted the concerns of the Barngarla People and discussed what appropriate consideration of their concerns by ARPANSA may entail in the future, if a siting license application is received. Council noted other domestic and international approaches and recommended these are discussed at a future meeting. ARPANSA agreed to circulate information on the Canadian Nuclear Safety Commission (CNSC) guidance as an example.

Task: Circulate CNSC guidance on indigenous engagement to Council members.

The CEO noted that ARPANSA has undertaken planning for responding to an international nuclear event including a review of staff resources required to maintain a situation monitoring and atmospheric modelling team. ARPANSA has provided guidance and advice to the Department of Foreign Affairs and Trade (DFAT) on responding to hypothetical incident scenarios. Council also noted the valuable advice for Members of the Public on Protection in Case of a Nuclear Detonation recently published online by the International Commission on Radiological Protection (ICRP).

The Council noted ARPANSA's preparations underway for the IAEA's Integrated Regulatory Review Service (IRRS) Follow Up Mission scheduled for October 2023. The IRRS Follow Up mission will review progress against findings from the original mission in 2018. It was noted that those 2018 findings which affected multiple Australian jurisdictions have recently been receiving the attention of the Radiation Health Expert Reference Panel (RHERP) on behalf of enHealth (Environmental Health Standing Committee) which advises the Australian Health Practitioner Principal Committee.

The CEO noted that two Comcare investigations arising from an incident in 2020 have been formally closed. The CEO acknowledged the work of ARPANSA's safety team to identify and resolve gaps in the safety management system. The Council also received topic summaries of recent media enquiries and general-public enquiries to ARPANSA, it was noted that electromagnetic energy (EME) continues to be the primary area of enquiry.

4 – Member representing the interests of the general public

The member representing the interests of the general public noted that no questions or concerns had been raised since the previous meeting.

5 – National Workforce Capacity & Capability

The Council received a presentation on challenges and planning for a National Workforce skilled in radiation protection from the Australasian Radiation Protection Society (ARPS). ARPANSA also noted that a national strategy for Australia to develop the required nuclear workforce, including radiation protection, regulation, and emergency response is being developed through the work of the AUKUS Taskforce. The Council discussed challenges and opportunities for Australia to build and maintain a sufficient workforce skilled in radiation protection and more broadly in nuclear safety. Areas in which ARPANSA may be able to assist in developing the future workforce were discussed, including student outreach, opportunities for ARPANSA to partner with other organisations, and highlighting career opportunities in the field.

6 – Emergency Preparedness & Response

The Council received presentations from Queensland Health on the topics of Queensland Emergency Response; Metro North District Emergency Response; and Queensland's standing preparations for nuclear powered warship visits as part of the Visiting Ships Panel (Nuclear) (VSPN). Working relationships and communication between staff of different agencies to enable effective responses was highlighted by both Queensland Health and the Council as important to incident planning.

The Council discussed national challenges and opportunities to improve current Emergency Preparedness and Response (EPR) plans for radiological incidents. This covered Australia's current federated radiation regulatory system, including emergency response planning which ARPANSA contributes to as the Commonwealth regulator and the National Competent Authority under the IAEA's emergency notification and assistance conventions. It was noted that the federated regulatory system has led to different plans and role expectations among different jurisdictions and different agencies that would respond to any incident. It was recommended that a gap analysis be conducted of preparedness, response, and recovery plans including review of existing plans, role expectations, capabilities, and projected workforce requirements.

ARPANSA noted that the Agency is currently aiming to have staff from different jurisdictions train together in the future to make future collaboration smoother, and that a future emergency preparedness and response (EPR) review across jurisdictions could be considered. It was further noted that any sovereign capability for nuclear powered submarines would necessitate additional radiological EPR planning in Australia. The CEO noted that this is an issue that the AUKUS Taskforce was considering.

7 – CEO Responses to advice previously provided

ARPANSA noted that the Council had previously provided advice on several topics, and ARPANSA's responding activities had been discussed at subsequent meetings without a formal response being provided to Council. A formal response letter covering all recent advice is under development and the CEO provided a verbal summary of the contents of this formal reply.

Task: Finalise formal response letter to advice previously provided by Council.

The advice from the Council on UV radiation exposure has supported ARPANSA to raise the profile of the issue and work with the Department of Health. ARPANSA continues working with the Cancer Councils of Australia, Australian universities and the National Skin Cancer Committee, and in collaboration with national experts, has called for the phase out of exposure of humans to UV radiation to test sunscreen effectiveness and published two peer reviewed publications in *Public*

Health Research and Practice and Trends in Analytical Chemistry related to the effectiveness and compliance of sunscreens.

ARPANSA reported progress on Naturally Occurring Radioactive Materials (NORM) management over recent years following Council's advice, including engagement on the topic of oil and gas decommissioning, noting the International Commission for Radiological Protection (ICRP) have released recent advice on the topic. ARPANSA also noted previous cooperation agreements with the IAEA on NORM were useful, and that the Agency is considering further engagement with the IAEA.

Council's advice on the topic of cosmetic use of Non-Ionising Radiation (NIR) devices has led to further ARPANSA advice being issued, but there remains a lack of national policy or regulation. ARPANSA has called for further research on the health impact of such devices and has joined with Monash University to support PhD research on the topic, hopefully commencing in 2023.

Council's advice on accidental exposure to and non-clinical uses of lasers has led to ARPANSA advice to online marketplaces and engagement with the Australian Competition and Consumer Commission (ACCC) on the safety and sale of laser devices, as well as work with the Department of Home Affairs and Australian Border Force. It was noted that laser pointers are considered prohibited weapons in Australian states and territories, however there are limits to this legislation. Council noted that it would be preferable to have a Consumer Guide for laser products.

Following Council's advice on increased radiation exposure due to increased medical imaging in Australia, ARPANSA continues to run the national Diagnostic Reference Level (DRL) program and is undertaking research and advice on the topic of lumbar computed tomography (CT). It noted the diagnostic and therapeutic benefits of increased medical imaging need to be weighed against the impact of typically only slightly higher radiation exposures, and communication to the public will help in understanding the balance of risks and benefits.

The CEO thanked the Council for their advice and recommendations which continue to guide the priorities for ARPANSA's work.

8 – CEO Response to Nuclear Powered Submarines Advice from the Council

The CEO thanked the Council for its recent advice. ARPANSA noted that the advice from Council is primarily centred on broad principles and that the issues raised are already being actively considered by the AUKUS Taskforce, with considerable developments since the working group first commenced its work. It was noted that any future actions, if required, depend on the announcement of the outcome of the AUKUS Taskforce.

9 – International Commission on Radiological Protection (ICRP) Update

ARPANSA attended the ICRP meeting in Canada which considered the ongoing review of the ICRP's system for radiological protection. It noted broad agreement between attending organisations that the system is fit for purpose but there is opportunity to improve how it is communicated. There was recognition that the Linear No-Threshold (LNT) model for the impact of radiation exposure is fit for purpose and will not be replaced, but there was also a need to engage technical writing specialists to assist with improving the clarity of ICRP documents and improve communication.

A discussion on the definition of 'detriment' with respect to radiation exposure noted that some exposure to radiation was of lower detriment than a lack of access to medical care from diagnostic and therapeutic radiation exposure. The Council discussed that there is good public understanding of the medical benefit of radiation use in Australia. However, public perception of radiation and fear of possible exposure to radiation may be a larger issue in emergency response management, particularly for first responders, in comparison to other hazards. The Council members requested that presentations, or submitted extended abstracts, from the ICRP meeting in Canada be circulated to the Council members for reference.

Task: Presentations / Extended Abstracts from the ICRP meeting to be circulated to Council members

Task: Council working group on ICRP to hold another meeting before the end of 2022.

10 – UV radiation and Skin Cancer incidence in Australia

The Council received a presentation from Associate Professor Catherine Olsen, QIMR Berghofer, on developments and trends in UV radiation exposure and skin cancer incidence in Australia. This included recent statistics that skin cancer incidence per capita is increasing in Australia, particularly among people over 55 years of age, but is declining in younger age groups, and that in Australia 65% of women and 79% of men will have at least one excision for skin cancer in their lifetime.

The Council discussed an issue noted in its previous advice, that Australia does not have a register or count of the number of skin cancer cases in Australia nationally and that ARPANSA may be able to encourage the development of such a register to improve tracking, response, and treatment planning. An example of the impact of the lack of such a register is that complex skin cancers which require radiotherapy may not be sufficiently considered when planning radiotherapy resources as there is insufficient statistics for this planning. A possible national register could follow the example of Tasmania which does have mandatory reporting of skin cancers.

11 – New Issues to Consider

The Council discussed and summarised some issues that may be of importance for ARPANSA to consider in 2023. These included indigenous engagement, emergency preparedness and response (EPR), and outcomes from the AUKUS Taskforce. The opportunity for the Council to build greater engagement with the Nuclear Safety Committee was also highlighted.

12 – Housekeeping and Meeting Close

The next two Council meetings provisionally planned for late February 2023 and mid May 2023 with precise dates to be confirmed. The Chair called the meeting to a close.