



Radiation Health Committee

Meeting Minutes

Date	12-13 December 2023
Time	9:00 AM – 5:00PM (Day 1) 9:00 – 2:30 PM (Day 2)
Location	6 Tower St, Doncaster VIC 3108, and Virtual (Microsoft Teams)
Present	Roslyn Drummond (Chair), Gillian Hirth (CEO of ARPANSA), Fay Bellis, Glenn Riley (VIC), Mark Carey (NSW), Karen Marler (NSW), Penny Hill (ACT), Simon Critchley (QLD), Stephen Newbery (TAS), Joanna Wriedt, Daniel Bellifemine (SA), Bradley Feldtman (NT), Hazel Upton (WA). (ARPANSA attendees) James Wheaton, Nathan Wahl, Adrian Hawley, Jim Scott, Ivan Williams, Rick Tinker, Caitlin Waugh, Ryan Hemsley, Fiona Charalambous, Arne Biesiekierski.
Apologies	N/A
Secretariat	James Wheaton, Adrian Hawley

1 - Welcome and Introductions

The Radiation Health Committee (RHC) met in a joint sitting with the Radiation Health and Safety Advisory Council for the first half of day one. The Wurundjeri people as the Traditional Owners and Custodians of the Kulin nation land on which the meeting was held were acknowledged, with respect paid to their Elders, past and present.

2 - ARPANSA CEO Update

ARPANSA's CEO gave an update on recent regulatory activities including a virtual public forum on decommissioning of the Australian Nuclear Science and Technology Agency (ANSTO) HIFAR reactor; participation in the International Atomic Energy Agency (IAEA) Code of Conduct meeting on the Security of Radioactive Sources; and submissions from ANSTO seeking approval for OPAL reactor safety maintenance during 2024.

Recent international engagements were noted, including bilateral partner memoranda of understanding; the IAEA General Conference 2024; IAEA Safety Standards Committees; the International Commission for Radiological Protection (ICRP) Main Commission; the IAEA Commission on Safety Standards (CSS); and United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) public exposure working groups.

The CEO noted plans for a strategic planning environmental scanning exercise in 2024 to inform an Environmental Framework. The scan will consider, among other issues which may impact regulators:

climate change, increasing use of nuclear power internationally, and the use of AI in industry and by regulators.

ARPANSA provided an update on its role in live ultraviolet (UV) index data for public health information tools and national sun protection campaigns, along with commercial services issuing sunglass swing tags and developing a wet-test method for sun protective clothing. ARPANSA also noted its delivery of an educational package during science week to primary schools and kindergartens to promote sun smart behaviour, and filming of an educational package for SunSmart on UV Radiation for primary and secondary schools in 2024.

ARPANSA will also support the international UV and Skin Cancer Prevention conferences to be held in Brisbane in September 2024, and continues to collaborate on research and contribute to national and international standards and guidelines on UV Protection, including with RMIT to develop a non-human testing method to determine the SPF of sunscreens, and contributing to new International Commission Non-Ionizing Radiation Protection (ICNIRP) guidance on the long-term effects of chronic UV exposure.

2.1 - Reconciliation Action Plan

ARPANSA gave an update on the development of a Reconciliation Action Plan. The Council expressed their support for ARPANSA's work to develop a Reflect RAP and for ongoing work in this area.

2.2 - Emergency Preparedness and Response (EPR) Activities

ARPANSA presented a summary of key recent emergency preparedness and response activities, including hosting the Radiation Emergency Assistance Centre/Training Site (REAC/TS) course for doctors, nurses, paramedics across Australia; updates to the Reference Incident for nuclear-powered vessels visiting Australia; Commonwealth co-operation on EPR capability and capacity for national radiological plans; and capability support provided to jurisdictions to search for lost radioactive material, noting there are usually less than 5 lost sources per year recorded in the Australian Radiation Incident Register.

2.3 – Media and Public enquiries dashboards

The Council received updates on recent media enquiries and public enquiries to ARPANSA, noting key areas of public interest in radiofrequency for telecommunications and electrical supply infrastructure near homes. The top three areas of media interest were mobile phone safety, the Australian Border Force seizure of radioactive materials in Arncliffe, and radioactive waste.

2.5 - Nuclear Safety Committee (NSC), Council Updates

The Chairs of the Nuclear Safety Committee and Radiation Health and Safety Advisory Council provided brief updates on recent activities and considerations of their respective advisory bodies. Meeting summaries are at www.arpansa.gov.au/about-us/advisory-council-and-committees.

3 - Nuclear-powered submarine program implementation

ARPANSA gave an update on activities being undertaken to support implementation of Australia's nuclear-powered submarine program. This included an update on the Australian Naval Nuclear Power Safety Bill 2023, tabled in Federal Parliament on 16 November 2023. This included an update on the proposed transitional provisions that would be implemented for transition of any licensing activities that ARPANSA might need to oversee prior to the establishment of the new regulator.

ARPANSA also provided a high-level overview of internal changes at ARPANSA to support this work, and a visit to the Office for Nuclear Regulation (ONR) in the United Kingdom (UK) for discussion on emergency preparedness and response experiences, knowledge management and capacity building, and familiarisation of how the interfaces between the ONR and the UK Defence Nuclear Safety Regulator were managed.

4 - 2023 Integrated Regulatory Review Service Follow-up Mission to Australia - Debrief

ARPANSA's role was considered, with respect to addressing findings from the recent International Atomic Energy Agency (IAEA) Integrated Regulatory Review Service (IRRS) Follow-Up Mission to Australia, which reviewed Australia's national, legal, and governmental framework for nuclear and radiation safety against IAEA Safety Standards. The 2023 IRRS Mission reviewed progress against findings from the 2018 IRRS Mission.

It was noted that the IRRS formally acknowledged two 'good practices' for Australia which the IAEA considers will help 'lift the bar' of international best practice. These were ARPANSA publishing the results of its assessment of leadership for safety and safety culture on its website; and use of an incident management system for routine health and safety incidents which is expected to help ensure that staff are familiar with the system and can use it effectively to respond to emergency situations. The IRRS noted some key areas not yet achieved including the need for a national strategy for radiation safety, and greater uniformity of regulatory approach across Australia such as in the management of sealed sources.

ARPANSA's support was acknowledged, with respect to broader Commonwealth and national activities which address the IRRS findings and help ensure that Australia is consistent with IAEA standards and meets international best practice. ARPANSA's own current and future activities were discussed in terms of how they directly contribute to national uniformity in radiation protection.

5 – National Uniformity

The final joint-sitting item for Council and RHC was a discussion about how ARPANSA can best promote national uniformity, and define its own role moving forward, in the context of existing activities, other increasing commitments such as AUKUS, and the IRRS findings.

6 - Regulatory knowledge exchange

The RHC shared regulatory knowledge and experiences in relation to recent lost radioactive source incidents in the jurisdictions of Tasmania and South Australia, including issues around financial assurances, and interfaces with company administrators and the *Corporations Act 2001*.

7 - RHC Housekeeping

The RHC Chair formally opened the RHC-only stage of the meeting, acknowledging virtual attendees and noting that no conflicts of interest were declared. The minutes of the 27-28 July 2023 meeting were endorsed as final, and the secretariat provided an update on actions taken to address tasks from the previous meeting and outstanding actions from prior meetings.

The member representing the interests of the general public noted no issues for specific tabling.

8 - General discussion on IRRS and National Uniformity

The RHC discussed what aspects of ARPANSA's role were critical to supporting national uniformity from the perspective of the States and Territories.

The Radiation Protection Series of codes, standards and guidance for radiation safety was noted as a key national contribution of ARPANSA, along with its emergency preparedness and response capabilities. ARPANSA's research and other services such as establishing Australian diagnostic reference levels were noted as contributing to national approaches in radiation safety, as were its representation of Australia at IAEA Safety Standards committees.

Task: The RHC agreed to establish a working Group to prepare a letter to the CEO capturing the ARPANSA activities which are important to jurisdictions.

Working Group members: Joanna Wriedt, Fay Bellis, Stephen Newbery, Simon Critchley

9 - Nuclear-powered submarine program implementation (continued)

ARPANSA gave an update on work underway to accommodate nuclear safety into the codes and standards framework for Australia. This included the development of a new code applicable to research reactors and nuclear-powered submarines, based on IAEA specific safety guides for research and power reactors, but tailored to the Australian regulatory environment to ensure alignment between civilian and military safety requirements.

Task: RHC members were asked to provide feedback or comments on a Draft Nuclear Safety Code to the Secretariat by 2nd February.

10 - Radon Guide - exposure in the workplace (advisory note)

The RHC was presented with a final version of a draft radon guide following consultation with Safe Work Australia. The RHC suggested that site-specific examples could be used for illustration.

Task: RHC Members were asked to provide further comments by 3 January 2023.

Task: ARPANSA was asked to provide a further draft advisory note for endorsement out of session to enable the guidance to be published as an RHC statement.

11 - Working group updates

The RHC considered the status of its working groups, including the below in detail.

11.1 - Dental Code Working Group

Following the clarification of several issues at RHC in July 2023, the working group presented a draft revised Dental Code (RPS 10).

RHC discussed the need to include guidance on justification and quality assurance for cone-beam computed tomography (CBCT) in consultation with the professional dental associations, noting equivalent European and American documents, and Tasmanian guidance developed in conjunction with the Australian Dental Association.

The RHC discussed regulator concerns about the draft code containing sufficient dental-specific information to differentiate it from the broader Medical Exposure Code, while ensuring the structure of practice-specific codes remain flexible for changing practices and technologies.

Task: The working group was asked to provide separate draft clinical and safety guidance to accompany the draft dental code, for RHC to consider ahead of public consultation on the code.

Task: The RHC were asked to provide final comments on the draft code, with the working group to seek public comment on the draft code along with the draft clinical and safety guidance.

11.2 - Compliance Testing Standard

The RHC was presented with a comments resolution summary from public consultation on the draft Compliance Testing Standard, intended to be published alongside the new standard.

The draft standard was also re-tabled with minor amendments, to enable equipment to be tested up to two months prior to the compliance anniversary date while maintaining the anniversary date, to support proactive testing without a disincentive of changing the anniversary date. The committee noted concerns that fluoroscopy may not be able to comply with the new Code and discussed temporarily separating this issue until it is resolved.

Decision: The RHC endorsed the Comments Resolution document for publishing on ARPANSA's website with the standard.

Decision: Title to be changed to "Standard for Radiation Safety and Performance Testing of Diagnostic Imaging Apparatus".

Decision: The RHC endorsed the minor amendments to the new standard, with an review of the standard (noted in the standard's forward) to be held within 12 months to address comments and feedback from stakeholders. Specific tests relating to fluoroscopy were to likewise be noted in a statement as non-critical, allowing testing without failing the equipment.

Task: The RHC referred the new Compliance Testing Standard to the Radiation Health and Safety Advisory Council for endorsement.

11.3 - Radiation Gauges and Well-Logging Working Groups

The working groups sought direction on the way forward in relation to the structure of the two draft revised Codes so that the drafting process can be finalised. Two examples were tabled for consideration, and the RHC discussed the benefit of including references to the Planned Exposure Code so that users can largely rely on one document and noted that the Code is primarily aimed at required behaviours while other documents or annexes contain greater technical detail.

Support was also sought for further out-of-session consultation with RHC members to then finalise the draft Codes so that they are fit for public consultation.

ARPANSA's CEO requested that the recommendations from the 2023 Western Australian lost radioactive source incident in relation to issues and faults with radiation gauges are addressed in the draft standard. The RHC noted that the inclusion of a requirement for quality assurance systems in the manufacture of industrial gauges would need to be considered.

Decision: the RHC agreed to stipulate key relevant requirements from the overarching Planned Exposure Code (PEC) within the practice specific draft Code (Option 2 in the meeting paper).

Decision: The RHC agreed to proceed with a Code, Equipment Standard and Safety Guide as separate components of a package for joint public consultation.

Task: The working group was asked to circulate a draft Code out of session in time for consideration for the next meeting, with its associated equipment standard and safety guide.

Task: Working group to prepare a document for the RHC which looks at the root cause analysis of the WA lost source incident and how issues leading to that incident are addressed in the new Radiation Gauges Code and associated Equipment Standard.

Task: To discuss at a future RHC meeting whether the development process used in the radiation gauges and well logging working group is to be used as an example for developing future codes.

11.4 - Dosimetry Service Provider Standard - publication and accreditation pathways

The working group presented a proposed accreditation mechanism to facilitate the implementation of the recently endorsed standard, recommending making it an Australian Standard with the RHC as the nominated Technical Reference Committee.

The RHC noted that an Australian Standard could be picked up by ISO 17025 accrediting organisations such as NATA and would therefore be available to organisations outside Australia. The standard is only aimed at requirements of local distributors in Australia, as the manufacture and testing of dosimetry is typically already covered by ISO 17025 accreditation, and compliance with an Australian Standard could readily be implemented as a requirement by regulators.

The RHC discussed the need to understand associated costs with the proposed approach, including open access to the standard and the potential need for publicly available guidance.

Decision: The RHC endorsed the recommendation to undertake further consultation with NATA and Standards Australia and development of a formal proposal to the RHC.

Action: The Working Group to prepare a formal recommendation for RHC approval which outlines the timelines, costs, and further details for development of an Australian Standard.

12 - Working Group Updates Continued

12.1 - Mobile CT working group

The RHC discussed some general issues in relation to generic principles for operating safely and under the medical code and the planned exposure code, including training certification and

administration considerations around consistent licensing positions to enable inter-jurisdictional recognition.

Task: The working group was asked to bring an issues paper to RHC for further discussion, with an aim to support and enable a consistent licensing position for devices which cross jurisdictional boundaries.

13 - New items

13.1 - Radiotherapy Auditing

ARPANSA gave a presentation to RHC on contemporary practices in radiotherapy auditing, and how regulators can be assured that the audits being performed under their approval are appropriate and fit-for-purpose. The RHC discussed whether a standard to ensure auditing quality could be developed as an Australian Standard, similar to the proposal for the dosimetry service provider standard, and which technical group could potentially develop any standard.

Task: ARPANSA to consider what technical group might draft a standard. ARPANSA took on notice to review what other members of the Global Harmonisation Group have done in this area and prepare an issues paper for submission to RHC, or clearer recommendation for RHC consideration.

13.1 - X-ray Screening for Security Purposes

The RHC discussed the need for further evaluation of this issue, and the broader issue of scanning humans for non-medical purposes and agreed to add this topic the proposed 2024 RHC work program for consideration at its next meeting. It was proposed that ARPANSA's current guidance on human imaging with ionising radiation for non-medical purposes could be codified, but was decided that existing advice remained sufficient for jurisdictions to adjudicate on a case by case basis. The [IAEA SSG 55 Radiation Safety of X-ray Generators and Other Radiation Sources Used for Inspection Purposes and for Non-medical Human Imaging](#) would also be considered.

Task: Add the topic of 'human imaging with ionising radiation for non-medical purposes' to the proposed 2024 RHC work program.

Task: Prepare an issues paper outlining use-cases and justifications for RHC consideration.

13.2 - Theranostics

The RHC discussed the emerging field of theranostics, the use of radiopharmaceuticals to diagnose and treat cancers.

Task: This topic is to be included for consideration on the RHC 2024 workplan.

14 - Meeting Close

The RHC noted proposed meeting dates for the following year, including the first proposed meeting date of 6-7 March 2024.