



Radiation Health and Safety Advisory Council ('Council')

FINAL Meeting Minutes

- Date:** 11-12 December 2019
- Time:** 12.20 pm – 5.00 pm (Day 1), 9.00 am – 2.00 pm (Day 2)
- Location:** 38-40 Urunga Parade, Miranda (Sydney)
- Chair:** Dr Jane Canestra (elected for meeting)
- Members:** Dr Carl-Magnus Larsson, Dr Hugh Heggie, Mr Keith Baldry, Dr Stephen Newbery, Prof Pam Sykes, Ms Melissa Holzberger, Prof Adele Green, Dr Peter Karamoskos, Dr Melanie Taylor, Mr Frank Harris (via video for items 2.1 and 2.2).
- Apologies:** Dr Roger Allison.
- Secretariat:** Mr James Wheaton, Mr Ben Paritsky.
- Observers:** Mr Jim Scott, Ms Tone Doyle, Dr Rick Tinker, Mr Nathan Wahl, Dr Ken Karipidis, Dr Samir Sarkar, Dr Gillian Hirth, Assoc. Prof Ivan Williams (all from ARPANSA).

1. Standing items

Item 1.1 Meeting open and welcome

The Chair welcomed everybody and noted the smoke health hazard in Sydney presently.

Item 1.2 Declarations of interests

No declarations of interest were made.

Item 1.3 Review of previous Minutes and Actions

No further comments were received on the previous minutes. The actions were reviewed with most items noted as having been progressed to agenda items at the current meeting.

Action: The Minutes and Actions for the August 2019 meeting were noted as final.

Item 1.4 Updates from the Radiation Health Committee (RHC) and Nuclear Safety Committee (NSC)

RHC

The CEO noted progress on an action plan to address recommendations from the recent Integrated Regulatory Review Service (IRRS), noting key progress but also limitations across the jurisdictions. A new version of the National Directory for Radiation Protection (NDRP) (Edition 2) is being progressed.

The CEO asked the Council to note that, following an IRRS recommendation, ARPANSA has now included exposure limits for 16-18 year old people undergoing training or similar in workplaces where they could be exposed to radiation, based on the IAEA Basic Safety Standards. RPS 1 Rev. 1, to be published shortly, will incorporate this amendment.

NSC

A lot of the NSC's recent focus has been on reviewing a new process that the Australian Nuclear Science and Technology Organisation (ANSTO) has proposed for safety assurance, following recent incidents' and subsequent regulatory actions by ARPANSA.

The CEO noted that the NSC has now also signed-off ARPANSA's Regulatory Performance Framework (RPF) Report for 2018-19.

Item 1.5 CEO update on the activities of ARPANSA

The CEO highlighted the recent International Commission on Radiological Protection (ICRP) Symposium that ARPANSA co-hosted with the Australasian Radiation Protection Society (ARPS) in Adelaide, South Australia, noting the session on radiation effects on biology in space, an area which will provide knowledge for other areas outside space. Council members also noted the benefit of discussing mature concepts that normally do not get discussed during routine regulation activities. Of note was the emphasis on the technological development and regulatory aspects of space travel (the lunar Gateway) and high-altitude orbital flights. Council broadly discussed future radiological issues from impacts on biology due to human space activity, including the usefulness of using exposure quantities (such as millisieverts) as an assessment of risk.

The CEO also noted recent parliamentary hearings that ARPANSA has been invited to attend, including the Commonwealth Standing Committee on Industry, Innovation, Science and Resources Roundtable on the Nuclear Industry in Australia; the Commonwealth Standing Committee on Environment and Energy Inquiry into the Prerequisites for Nuclear Energy in Australia; the New South Wales Standing Committee on State Development Inquiry into the Uranium Mining and Nuclear Facilities (Prohibitions) Repeal Bill 2019; the Victorian Standing Committee on Environment and Planning Inquiry into Nuclear Prohibition; and the Commonwealth Standing Committee on Communications and the Arts Inquiry into the Deployment, adoption and application of 5G in Australia.

The Deputy CEO provided an update on agency activities related to 5G technology, including a recent protest outside ARPANSA's Melbourne facility on 3 December 2019, noting this was a well-controlled public event with safety measures in place for staff and appropriate space and facilities for protestors.

Action: Circulate ARPANSA submission to Standing Committee on the Environment and Energy Inquiry into the Prerequisites for Nuclear Energy in Australia.

Item 1.5.1 International engagement update

An update on ARPANSA's activities was deferred and provided after item 2.2. It was noted that memorandums of understanding had been re-signed with the regulatory bodies of Norway and Indonesia. ARPANSA has entered into discussions with the International Atomic Energy Agency (IAEA) to improve radiation regulation and protection in Papua New Guinea and other Pacific island nations; work that, if it goes ahead, will require the support of State and Territory regulators.

Item 1.6 Member representing the interests of the general public

The Member representing the interests of the general public noted that there had been no contacts with him directly, but he had contacted indigenous interest groups in South Australia regarding the Department of Industry, Innovation and Science's (DIIS) proposed National Radioactive Waste Management Facility (NRWMF). The member highlighted the recent Federal Court of Australia decision, regarding the legality of a ballot to gauge community support for the proposed facility, which noted that native title was extinguished due to freehold of the site, and that it was a local council decision to hold a ballot.

From the Member's discussions with the indigenous interest groups, noting there were restrictions on comments due to legal proceedings, he relayed that indigenous community groups broadly contend they felt intentionally excluded from the processes in their communities due to their opposition and therefore believe the ballots were 'manufactured' and they are highly aggrieved. He also relayed that there is a deep lack of trust in the process; they are particularly concerned about the proposed storage of intermediate level radioactive waste at the site; and community members also emphasised to him that they are not obstructionist, having been demonstrably pro-development and cutting many mining and tourism deals.

ARPANSA noted that it had engaged with the Adnyamathanha people prior to the votes, but had not been successful in making contact with others despite reaching out previously. As ARPANSA has no formal role yet, it is difficult to do more currently especially while the vote processes conclude.

Council did not form a view during the meeting. Council discussed how this information should influence ARPANSA moving forwards. In discussion it was also noted that people do treat anyone from Government as part of separate entities with specific roles and identities. Council also noted that perceptions of risk in these communities include socio-cultural issues around trust, which has not been established, especially in the context of inter-generational history going back to Maralinga, South Australia.

ARPANSA noted it would welcome any advice from Council members, and this information may be most appropriately noted for ARPANSA's own assessments when or if the agency's formal role commences.

Action: Member representing the public to communicate that ARPANSA is interested in further opportunities for conversation with the affected communities in relation to the NRWMF.

Item 1.7 ARPANSA public and media enquiries dashboards

ARPANSA provided a summary of media and public enquiries, noting that 5G technology has been a key topic of interest recently with several media interviews requested of ARPANSA.

2. Briefs for Council

Item 2.1 Supervising Scientist Branch, Department of Energy and Environment

The Supervising Scientist, a position established under the [Commonwealth Environment Protection \(Alligator Rivers Region\) Act 1978](#), provided an overview of the rehabilitation plans for Ranger Uranium Mine in the Northern Territory, focusing on issues such as human, wildlife and environmental assessments of radiological exposure.

Item 2.2 Naturally Occuring Radioactive Material (NORM)

The NORM working group provided an update of outcomes from the ICRP Symposium in Adelaide in relation to NORM, and a proposed pathway forward to develop a Council position statement on NORM out-of-session for review at the first Council meeting in 2020.

Actions: NORM working group to reconvene in January 2020.

Item 2.3 ANSTO events update

ARPANSA provided an update of recent events at ANSTO, including recent incidents as well as the recent approval of the implementation action plan following the independent review of ANSTO's safety culture.

The implications of nuclear medicine supply and related issues were summarised.

ARPANSA's assessment focussed on safety culture of the Mo-99 Manufacturing Facility (formerly known as the ANSTO Nuclear Medicine (ANM) production facility), using an IAEA survey.

The Council expressed broad concern about the potential impact of management culture on safety at regulated entities, given that the regulator can be perceived as partly responsible for failings in a regulated industry.

The Council also discussed the assessment of mechanical failures in terms of their safety implications, noting that the failure of an item that is part of defence-in-depth system can still be connected to the issue of safety even where a safety incident did not result from the item's failure.

The Council expressed deep concerns around the safety issues related to the ANSTO incidents, and their impact on employees, agreeing to consider this matter further in the future.

Action: Consider what advice the Council can offer the CEO of ARPANSA on this matter.

Action: ARPANSA to circulate high level results from the recent ANSTO safety culture survey.

3. Other business

Item 3.1 Review of Day 1 Actions / other matters

The Secretariat provided a review of actions noted and other new tools and resources available to Council.

4. Items for review

Item 4.1 UVR Protection & Skin Cancer Prevention

The Council reviewed a draft letter to the CEO of ARPANSA, on the need for a national approach to skin cancer prevention, based on previous discussions and agreed proposed content and messaging. Minor changes to the draft were discussed and incorporated during the meeting.

Action: Council agreed that the Acting Chair should sign the letter to the CEO.

5. Items for review (continued)

Item 5.1 Revised ARPANSA policy of regulatory activities

This item was discussed after items 5.2 and 5.2a (new additional item) on the agenda. The CEO of ARPANSA gave an overview of the process and draft stages for ARPANSA's revised policy for regulatory activities. It was noted that ARPANSA intends to continually update related documentation and will seek Council input at each review. Council broadly supported the quality and intent of the policy. Particular comments from members were forwarded to ARPANSA for consideration separately.

Item 5.2 Diagnostic Medicine Clinical Committee Final Report

This item was discussed ahead of item 5.1 on the agenda. Council discussed the issue of appropriate decision support tools for imaging procedures in Australia that expose patients to radiation.

The Council noted the Radiation Health Committee's views would have been useful input to the Diagnostic Medicine Clinical Committee's considerations as part of the Medicare Benefits Scheme review process.

The Council discussed that medical professionals who prescribe imaging procedures may be subject to pressure to issue referrals, which adds to the potential benefits for a decision support tool especially in the context of national consistency across health systems to ensure an integrated approach. However, the potential need for multiple tools suited to various regional requirements and clinical specificities was also discussed and recognised.

The Council discussed the approach of guides and regulations (like Radiation Protection Series C-5, the Code for Radiation Protection in Medical Exposure) that focus on radiation protection principles as the driving incentive, whereas the clinical operating reality for radiological imaging is driven by financial and other factors. This suggests that alternative mechanisms are needed to drive behavioural change in referrals clinically.

The Council noted that solutions for appropriate imaging that private industry, professional bodies other parts of Commonwealth government may discuss are not always brought to the attention of state and territory regulators that often have the legislative mandates to introduce new tools. This was recognised as a gap in communication and barrier to introducing new solutions.

The idea of prescription authority and price mechanisms as a method to change behaviour was discussed, noting the different drivers needed between incentivising referrers versus providers of imaging procedures.

Examples of behavioural-change prompts that private industry currently employ, which target individual practitioners with information about their performance metrics, was discussed as a potential approach for changing behaviour around imaging referrals.

Action: Establish a Medical Imaging working group to flag issues for a justification section within a regulatory expectations document.

Action: Invite the Department of Health to the next meeting to discuss pathway forward on this issue.

Item 5.3 Roles and Expectations of Advisory Bodies

Proposals to update the Roles and Expectations of Advisory Bodies document were tabled. This included proposed changes to reflect updated requirements in the Australian Radiation Protection and Nuclear Safety Regulations 2018 for declarations of conflicts of interests from members; proposed changes to improve the consistency of handling public enquiries across the Council and committees; and proposed changes to introduce mechanisms to periodically review the accuracy of statements or advice from the Radiation Health Committee. Council discussed each issue and was broadly supportive of the proposals. Additional comments were made around the issues of indemnity.

Action: Council endorsed the changes to the disclosure requirement amendments, and their referral to the committees, subject to the other proposed amendments being circulated out-of-session.

Action: Circulate out-of-session the Roles and Expectations of Advisory Bodies document with the proposed changes for Council's consideration.

6. New items to consider

The Council discussed new potential topics for future discussion, including health concerns about the use of cosmetic laser or intense-pulsed-light procedures, and regulatory models for low dose radiation.

7. Other business

The Council reviewed its action items from the meeting and agreed to revisit the topics of naturally occurring radioactive material, medical imaging, ultraviolet radiation protection and recent ANSTO events.