Australian Government

Australian Radiation Protection and Nuclear Safety Agency

Quarterly Report

of the

Chief Executive Officer of ARPANSA

January to March 2015

Further information about this publication

If you would like to know more about the content of this publication please contact ARPANSA on 1800 022 333 or e-mail at ***info@arpansa.gov.au***. Further information about ARPANSA can be found on the Agency's website at ***www.arpansa.gov.au***.

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is the Australian Government's primary authority on radiation protection and nuclear safety. ARPANSA regulates Commonwealth entities using radiation with the objective of protecting people and the environment from the harmful effect of radiation. ARPANSA undertakes research, provides services, and promotes national uniformity and the implementation of international best practice across all jurisdictions.

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Table of Contents

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Letter of Transmittal

5 June 2015

Senator the Hon Fiona Nash
Assistant Minister for Health
Parliament House
Canberra ACT 2600

Dear Minister

The *Australian Radiation Protection and Nuclear Safety Act 1998* (the Act) requires the Chief Executive Officer (CEO) of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) to submit to the Minister, at the end of each quarter, a report on:

- the operations during the quarter of the CEO, ARPANSA, the Radiation Health and Safety Advisory Council (the Council), the Nuclear Safety Committee (the NSC) and the Radiation Health Committee (the RHC)
- details of any direction given by the Minister to the CEO under section 16 of the Act
- any breach of licence conditions by a licensee, of which the CEO is aware
- all reports received by the CEO from the Council and the NSC under Part 4, paragraphs 20(f) or 26(1)(d) of the Act, and
- the facilities licensed under Part 5 of the Act.

I am pleased to provide you with a report, meeting the requirements of the Act, covering the period 1 January to 31 March 2015.

Please note that subsection 60(6) of the Act requires you to cause a copy of the report to be laid before each House of the Parliament within 15 sitting days of the day on which this report was given to you.

Yours sincerely

Carl-Magnus Larsson
CEO of ARPANSA

Report on the Operations of the CEO and ARPANSA

ARPANSA is an agency within the Department of Health portfolio focused on delivering the outcome and program described in its Portfolio Budget Statement.

Outcome for the Australian community:

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

To deliver this outcome, the agency undertakes a planned set of activities collectively referred to as the **Radiation Protection and Nuclear Safety Program**.

This program is made up of four components:

- protect the public, workers and the environment from radiation exposure
- promote radiological and nuclear safety and security, and emergency preparedness
- promote the effective use of ionising radiation in medicine, and
- ensure effective and proportionate regulation and enforcement activities.

The report on the operations of the CEO and ARPANSA is based on these components.

Protect the public, workers and the environment from radiation exposure

Uranium Mining and Naturally Occurring Radioactive Materials Industries

ARPANSA maintains the Australian National Radiation Dose Register (ANRDR) which records, stores and audits radiological dose histories for uranium industry workers in Australia. The Dose Register is receiving worker dose records from all four uranium mines that are licensed to operate in Australia: Olympic Dam, Beverley and Honeymoon (presently in caretaker mode) in South Australia, and Ranger (not presently operating) in the Northern Territory. The Dose Register currently holds dose history records for more than ~33,000 workers from the uranium mining and milling industry. ARPANSA is continuing to work on its expansion to include occupationally exposed workers in other industries, such as mineral sands mining and processing operations, and applicable Commonwealth practices.

Monitor and Mitigate Population Exposures to Electric and Magnetic Fields, Electromagnetic Radiation and Solar Ultra Violet Radiation

During this quarter, ARPANSA signed a Memorandum of Understanding with the Australian Communications and Media Authority (ACMA) to exchange information on electromagnetic energy (EME) issues related to telecommunications. This arrangement is an extension of the two agencies' existing collaboration and information-sharing, and will ensure that EME regulation is based on sound scientific research. ARPANSA and the ACMA have also released joint statements on EME topics of public interest accessible from the following link:
www.arpansa.gov.au/AboutUs/Collaboration/acma.cfm

Sun Protection

During this quarter, the House of Representatives Standing Committee on Health's Report on the Inquiry into Skin Cancer in Australia *'Skin Cancer in Australia: Our National Cancer'* was published. ARPANSA gave written and oral evidence to the Inquiry based around the following key messages:

- most skin cancer is preventable
- solar ultraviolet radiation (UVR) causes 99% of non-melanoma skin cancers and 95% of melanoma cancers, and the primary means of preventing skin cancer is through public and occupational awareness campaigns that are underpinned by evidence based scientific research.

Promote radiological and nuclear safety and security, and emergency preparedness

During this quarter, ARPANSA maintained specialised radiation emergency capabilities in line with Australian emergency planning arrangements. ARPANSA's Emergency Preparedness and Response Group continued its training cycle by providing emergency response training to ARPANSA staff operating in a surge capacity.

As part of the Australia and New Zealand Counter Terrorism Committee, Chemical, Biological, Radiological and Nuclear (CBRN) Security Sub-Committee, ARPANSA undertook a leading role in the annual CBRN Crime Scene Investigators and the CBRN Incident Commanders training course that was hosted by the Country Fire Authority and Mount Waverley Police Academy in Victoria from 2 to 6 March 2015. The course was attended by 60 Incident Commanders and front-line counter-terrorism operators from all jurisdictions in Australia. These courses promote national uniformity in CBRN skills and knowledge, whilst also ensuring inter-operability and harmonised communications across all jurisdictions within Australia.

International Monitoring Network

As part of Australia's ongoing commitment to the Comprehensive Nuclear-Test-Ban Treaty (CTBT), ARPANSA operates and maintains radionuclide air particulate monitoring stations in Melbourne, Perth, Townsville, Darwin, the Cocos Islands, Macquarie Island, and Mawson Base (Antarctica), together with two noble gas monitoring facilities, co-located with the air particulate monitoring stations in Melbourne and Darwin.

ARPANSA continued to operate the Australian CTBT Radionuclide Laboratory (CRL) which is a certified laboratory for analysis of air particulate samples forming part of the CTBT laboratory network. ARPANSA also hosted, in cooperation with the Comprehensive Nuclear-Test Ban Treaty Organization (CTBTO) the Radionuclide Laboratory Workshop in Melbourne from 16 to 20 February 2015. The workshop was attended by 32 participants from 12 countries (each having an International Monitoring Station laboratory) and a total of 18 organisations. The observations and recommendations from the workshop were reported at the 44th meeting of the CTBTO Working Group B meeting held in Vienna, Austria in March.

Stakeholder engagement

Strengthening Provision of Information to the Public

During this quarter, ARPANSA improved the navigability of its website by introducing a new '*For the Public'* section containing fact sheets on a variety of areas of concern. The new fact sheets on electromagnetic fields and ultraviolet radiation consolidate and update previously available information in a convenient new format which includes audio visual content and a Frequently Asked Questions section.

ARPANSA also introduced a '*Talk to a Scientist*' program running on Tuesdays and Thursdays where members of the community can call ARPANSA and speak with a scientist about issues related to radiation protection topics.

Australian Standards

ARPANSA participated in meetings of Standards Australia Committee TE-007 – Human Exposure to Electromagnetic Fields. ARPANSA chairs this Committee, which oversees the update of relevant Australian Standards related to exposure to electromagnetic fields. The meetings in this quarter discussed progress on the update of *Australian Standard 2772.2:2011 Radiofrequency fields – Principles and methods of measurement and computation – 3 kHz to 300 GHz*.

Promote the effective use of ionising radiation in medicine

Calibration Services

As a part of the agency's regular calibration services for radiotherapy providers and industry users of radiation, ARPANSA calibrated three survey meters, five electrometers and seven ionisation chambers. The new service for direct calibrations using megavoltage linac photons was requested by four hospitals.

During the quarter, ARPANSA received the Managing Director of PTW, a German dosimetry equipment manufacturing company. Discussions with the company helped resolve questions about the behavior of dosimetry equipment in the ARPANSA calibration service.

Australian Clinical Dosimetry Service

The Australian Clinical Dosimetry Service (ACDS) is a joint initiative between the Department of Health and ARPANSA to provide an integrated national approach to promoting safety and quality in radiotherapy, which is expected to lead to further improvements in radiotherapy treatment outcomes. The ACDS provides radiation specialists with a source of independent checks for equipment and patient doses.

The ACDS continued operations under a new Memorandum of Understanding (MoU) between the Department of Health and ARPANSA covering the calendar year 2015 to 2016. During this quarter, the ACDS maintained the existing audit service and continued the planning process for the 2015-16 program. Action to hire new expert staff is nearing completion with the expectation that the ACDS will begin auditing according to the newly scheduled audit frequency in the second half of 2015.

Diagnostic Imaging

Internal publication of a technical report on the first three years of the Diagnostic Reference Level Service was completed. Data analysis of computed tomography DRL data indicated a statistically significant reduction in CT patient dose with the application of iterative reconstruction technology. This data was presented at the European Congress of Radiology in early March.

ARPANSA consulted with NATA concerning the desktop assessment of facilities undergoing the updated draft requirements of the Diagnostic Imaging Assessment Scheme.

Stakeholder engagement

ACDS Stakeholder Engagement Meeting, 28 March 2015

Following the agreement of the new MoU between the Department of Health and ARPANSA to fund the ACDS for a further two years, a workshop with stakeholders was held at ARPANSA's Yallambie campus on 28 March to discuss the mechanism and funding arrangements for an ongoing national dosimetric service beyond December 2016. Participants included state and territory radiation regulators and Department of Health representatives, private providers, public and patient groups and the related professional colleges.

Radiation Protection of the Patient – Project Reference Group

On 20 February 2015, ARPANSA continued its ongoing Radiation Protection of the Patient stakeholder engagement with the Project Reference Group (PRG) established by the Australian Commission for Safety and Quality in Health Care (ACSQHC). The PRG oversees four projects by ACSQHC and ARPANSA aimed at reducing radiation exposure to patients, with the three ACSQHC projects focusing on Paediatric CT and ARPANSA more broadly based on radiation protection to the patient. The PRG has enabled feedback from and access to key organisations and peak bodies including: the Royal Australian College of General Practitioners; the Royal Australian and New Zealand College of Radiologists; Australian Institute of Radiography; Australasian College of Physical Scientists and Engineers in Medicine; NPS MedicineWise; major hospitals and medical facilities and government departments. The PRG indicated that ARPANSA's draft RPOP Module was progressing well.

Reduction on Radiation Exposure to Children from CT Scans: Radiographer module development workshop

On 13 March 2015, ARPANSA participated in a joint workshop with the Australian College of Radiography and the Australian Commission for Safety and Quality in Health Care to develop a module to aid radiographers in reducing radiation exposure to children from CT scans. The workshop helped identify how to support the development of professional knowledge and skills specifically related to paediatric CT scanning through online learning, the provision of support material and mentorship. This workshop was part of ARPANSA's broader Radiation Protection of the Patient stakeholder engagement.

Ensure effective and proportionate regulation and enforcement activities

Standards and Guides

In January 2015, ARPANSA's Radiation Health Committee published a Position Statement on ARPANSA's website: 'Regulatory Expectations for users of radiation sources seeking to obtain authorisations in more than one jurisdiction'. This document was designed to reduce the regulatory burden on users of radiation sources operating in more than one jurisdiction. The document was endorsed by ARPANSA and radiation regulators in New South Wales, Northern Territory, Queensland, South Australia, and Victoria. The document sets out what applicants can expect when seeking authorisations (licences or registrations) for the same activity in multiple jurisdictions. Ultimately, it endeavours to further the objectives of nationally uniform radiation protection outcomes, and to minimise unnecessary regulatory burden. ARPANSA is seeking endorsement of the Regulatory Expectations by the radiation regulatory bodies of the remaining jurisdictions (the Australian Capital Territory, Tasmania and Western Australia).

Significant Licensing Activities

The first periodic security review of the OPAL reactor was assessed by a joint working group of staff from ARPANSA and the Australian Safeguards and Non-Proliferation Office (ASNO). The CEO of ARPANSA amended three licence conditions based on ANSTO's review and the working group's assessment. These licence conditions call for the integration of safety and security into future periodic reviews. In addition, ARPANSA and ASNO are collaborating to produce a Regulatory Guide to assist ANSTO in performing future reviews more effectively and efficiently. This new integrated approach supports ARPANSA's intent to minimise regulatory burden.

Eight staff members from Regulatory Services Branch attended induction training on ANSTO's OPAL in early February. This training included all aspects on security and safety for the OPAL facility, and will permit unescorted access to facilitate improved inspections in the future.

ARPANSA approved the construction of two items important for safety at the ANSTO Nuclear Medicine Molybdenum-99 Facility, which is currently under construction (F0285).

ARPANSA amended Source Licence S0042 issued to the Department of Defence and Australian Defence Force authorising the licence holders to deal with a handheld X-ray Fluorescence Spectrometer.

ARPANSA approved the relocation of the Defence Tritium Repair Facility (TRF) to a new location.

ARPANSA approved an organisation change at CSIRO which resulted in the surrendering of the source licences S0017 and S0061. Amended source licences (S0009, S0013, S0019, S0021, S0023, S0025, S0064, S0066 and S0216) were issued to CSIRO describing the new licensing arrangements.

Inspections

ARPANSA continued its inspection program using the new regulatory services delivery model. A total of 24 inspections and site visits were undertaken during the quarter.

On 13 February 2015, ARPANSA conducted an inspection of the CSIRO Food and Nutrition Flagship which consisted of: discussions with the site Radiation Safety Officer (RSO) and Business Unit RSO; observations and verification that safe work instructions and procedures were in place and correctly followed, and an inspection of the laboratories and locations on site in which the controlled apparatus were used. There were minor discrepancies noted but it was concluded that CSIRO's use of the controlled apparatus complied with applicable regulations and licence conditions.

From 9 to 13 March 2015, inspections were carried out at ANSTO Life Sciences in Camperdown, Sydney as part of ARPANSA's baseline inspection program which requires each of eight inspection areas to be examined every three years. The inspections noted several performance deficiencies which, if addressed, would further support performance management efforts at the facility. However, there was no evidence of non-compliance and it is expected that ANSTO will address the performance deficiencies and record these in the Camperdown Issues Register.

From 17 to 25 March 2015, ARPANSA conducted an inspection of ANSTO Waste Operations as part of ARPANSA's baseline operations covering Performance Reporting and Verification and Configuration Management. The inspection consisted of record reviews, personnel interviews and facility visits. In general, reporting of required information by the licensed facility's management has been accurate and timely. The licensee's use of lessons learned was deemed to be noteworthy. Although performance in the inspected areas met applicable requirements, four performance deficiencies were identified for the licence holder to address.

From 24 March to the end of the reporting period, ARPANSA conducted inspections at ANSTO OPAL reactor as part of ARPANSA's baseline inspection program covering configuration management. The inspection consisted of review of records, personnel interviews and visits to the facility. Although it was concluded that performance in the inspected area met applicable regulations and licence conditions, five items for improvement were identified and it is expected that ANSTO will address the identified performance deficiencies.

Inspection reports are posted on ARPANSA's website at
http://www.arpansa.gov.au/regulation/inspections

International Engagement

Integrated Regulatory Review Service: Follow-up mission to the United Arab Emirates, Abu Dhabi, 31 January to 8 February 2015

From 31 January to 8 February 2015, ARPANSA CEO, Dr Carl-Magnus Larsson led a ten member Integrated Regulatory Review Service (IRRS) follow up mission to the United Arab Emirates (UAE) which included experts from Bosnia and Herzegovina, Germany, Slovenia, Sweden, and the United States, as well as four International Atomic Energy Agency (IAEA) staff members. The mission reviewed progress in addressing the findings from an initial IRRS mission conducted in 2011, and also included analysis of the safe transport of radioactive material. The mission concluded that the UAE's Federal Authority for Nuclear Regulation has strengthened its regulatory oversight and made significant progress since the 2011 mission, addressing 43 of the 48 findings. This travel was funded by the IAEA.

Diplomatic Conference on the Convention on Nuclear Safety, Vienna, Austria, 7 to 12 February 2015

ARPANSA's Chief Inspector, Mr Jack Dillich, attended the Diplomatic Conference on the Convention on Nuclear Safety, in Vienna, Austria. The Conference was held to consider an amendment to the Convention proposed by Switzerland. In the lead up to the Conference, the Contracting Parties developed a non-binding declaration that addressed the substance of the Swiss amendment through the implementation of enhanced safety measures to prevent accidents and mitigate off-site consequences at existing and newly constructed power reactors. The Vienna Declaration was adopted by consensus which represented a significant accomplishment. This travel was funded by ARPANSA.

Meetings: IAEA Fukushima Comprehensive Report drafting group meetings: Working Group 5 'Post-Accident Recovery' drafting meeting with Co-Chairs; Vienna, Austria – 2 to 6 February 2015

ARPANSA chaired Working Group 5 – Post-accident recovery drafting meeting at IAEA, Vienna, Austria - from 2 to 6 February 2015. ARPANSA met with co-chairs and the Nuclear Safety Action Team staff to respond to editor and reviewer comments on Chapter 5. The group worked through the entire draft of Chapter 5 following editing and addressing editorial review comments. Participation by ARPANSA strengthened Australia's ability to shape this key report on the nuclear accident at Fukushima, Japan. This travel was funded by the IAEA.

International Workshop on Dispersion and Deposition Modelling for Nuclear Accident Releases – Transfer of Science from Academic to Operational Models. Fukushima, Japan 2 to 4 March 2015

From 2 to 4 March 2015, an ARPANSA scientific expert attended an international Workshop on Dispersion and Deposition Modelling for Nuclear Accident Releases – Transfer of Science from Academic to Operational Models held in Fukushima, Japan. ARPANSA presented work done during the Fukushima accident in numerical modelling of the atmospheric releases using ARGOS decision support tool showing several examples in the estimation and refinement of source terms. The workshop in Fukushima confirmed that ARPANSA's approach of using a combination of modelling and monitoring to provide advice for protective measures in the case of an emergency is sound. Other meetings attended confirm that ARPANSA is advanced on environmental protection, however dispersion of radionuclides in the ocean is an area for improvement. This travel was funded by ARPANSA.

UNSCEAR Expert Group on Medical Exposures Meeting, Vienna International Centre, 2 to 3 March 2015

ARPANSA is participating in a global survey on ionising radiation exposure in medicine being conducted by the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). On 3 March, ARPANSA attended a coordination meeting at UNSCEAR's headquarters in Vienna to discuss the format of the survey and accompanying user manuals. This travel was funded by ARPANSA.

European Congress of Radiology 2015 Meeting, Vienna, 4 to 8 March 2015

ARPANSA attended the European Congress of Radiology from 4 to 8 March 2015, held in Vienna, Austria. ARPANSA presented two scientific papers and one electronic poster at the meeting concerning the data analysis of the national CT Diagnostic Reference Level program which demonstrated that the introduction of iterative reconstruction applied to CT scanning significantly reduces patient dose. This was the first international presentation of this data taken from a national CT dose survey conducted in Australia. This travel was funded by ARPANSA.

Korea Institute of Radiological & Medical Sciences - Radiation Emergency Medical Preparedness and Assistance Network Asian Workshop on Medical Preparedness and Response to Radiation Emergencies & International Workshop on Radiation Monitoring and Dosimetry, Seoul, Korea – 10 to 12 March 2015

From 10 to 12 March, 2015, ARPANSA attended the World Health Organization (WHO) Radiation Emergency Medical Preparedness and Assistance Network (REMPAN) Asian Workshop on Medical Preparedness and Response to Radiation Emergencies and the International Workshop on Radiation Monitoring and Dosimetry, held at the Korea Institute of Radiological & Medical Sciences (KIRAMS) Seoul, Korea. Discussions at the REMPAN Workshop will strengthen regional medical emergency preparedness and response arrangements while reducing the duplication of work being carried out by international organisations. The travel was funded by ARPANSA.

22nd Meeting of the Consultative Committee for Ionizing Radiation, Section I (Dosimetry), International Bureau of Weights and Measures, Paris, France – 24 to 26 March 2015

From 24 to 26 March, 2015, ARPANSA attended the biennial meeting of the peak international body for ionising radiation measurements, the International Bureau of Weights and Measures (BIPM). This meeting sets the work program in ionising radiation measurements for the international standards laboratory, BIPM. Of particular interest to Australia were new results in the international comparison of linear accelerator doses, which support the delivery of accurate radiotherapy in this country. Proposed changes to the accepted values of the material properties of air, water and graphite were presented, as was a draft for a new guide to the calculation of measurement uncertainty. This travel was funded by ARPANSA.

International Laser Safety Conference 2015, Albuquerque, New Mexico, 23 to 26 March 2015

From 23 to 26 March, 2015, an ARPANSA expert attended the International Laser Safety Conference, a biennial conference organised by the Laser Institute of America. This conference covered all aspects of laser safety practice and hazard control and focused on developments in regulatory, mandatory and voluntary safety standards for laser products and for laser use. The latest in scientific research on bio-effects, laser safety and practical aspects of laser safety was presented and discussed. ARPANSA's presentation described the development of regulations in Australia covering lasers and intense pulsed light sources used for cosmetic purposes. The travel was funded by ARPANSA.

Forty Fourth Session of Working Group B – CTBT - Vienna, Austria 18 to 26 March 2015

From 18 to 26 March 2015, an ARPANSA expert attended the Comprehensive Test Ban Treaty (CTBT) Working Group B held in Vienna, Austria. Working Group B is comprised of Member State representatives meeting to discuss technical issues related to the CTBT. ARPANSA's participation supports Australia meeting its treaty obligations including the operation of atmospheric radionuclide measurement stations (seven particulate and two noble gas stations, and a radionuclide laboratory). The meetings saw updates on topics including station performance, logistics, recapitalisation, and future developments. The travel was funded by ARPANSA.

Details of any Breach of Licence Conditions by a Licensee

Breaches with Significant Safety Implications

There were no breaches with significant safety implications recorded during the quarter.

Breaches with No or Minor Safety Implications

There was one breach with minor safety implications which occurred in December 2014 but which was not assessed and recorded until March 2015. The incident at ANSTO's OPAL reactor related to the bypassing of an interlock, which was contrary to procedures. In addition, it was concluded that management had not taken all reasonably practicable steps to prevent the occurrence. The breach was assessed to have minor safety implications because it did not result in harm or injury, was identified by the licence holder, and was addressed with corrective actions immediately. No enforcement action was considered necessary.

Facilities Licensed Under Part 5 of the ARPANS Act

During this quarter, no new facility licences were issued.

Transport of Radioactive Material

No approvals for the transport of radioactive material were issued in this quarter.

Operations of the Radiation Health and Safety Advisory Council, the Radiation Health Committee and the Nuclear Safety Committee

Radiation Health and Safety Advisory Council

During this quarter, the Radiation Health and Safety Advisory Council (Council) did not meet. The next meeting is scheduled for June 2015.

Reports to the CEO from the Radiation Health and Safety Advisory Council (s.20(f) of the Act)

There were no reports to the CEO from the Council during this quarter.

Radiation Health Committee

The Radiation Health Committee (RHC) met on 25 March 2015 at ARPANSA's Yallambie Offices.

The Committee was informed of the CEO of ARPANSA's plan to promote national uniformity, including investigating the use of the *Mutual Recognition Act 1992* for licensed radiation occupations; formation of an ad-hoc advisory panel comprising senior industry representatives to advise the CEO; actively engaging the radiation industry through key peak bodies; and raising national uniformity at a ministerial level as an opportunity to cut red tape in cross-border regulation of radiation occupations and apparatus. Members were briefed on progress of the redrafting of the National Directory for Radiation Protection (NDRP) and a proposal to seek delegation from the Council of Australian Governments (COAG) Health Council to give authority to the Committee to approve future amendments.

The Committee noted ARPANSA's intention to host an Integrated Regulatory Review Service (IRRS) Mission in 2018 and his invitation to state and territory regulators to have their regulatory activities included in the scope of the mission.

The RHC work program was discussed with status reports provided on current projects. The Draft *Code for Radiation Protection in Planned Exposure Situations* and Consultation Regulatory Impact Statement on the proposed NDRP amendment *Control of IPLs and Lasers for Cosmetic Use* were approved for public consultation. The Committee noted that Amendment 7 of the NDRP to cover user disposal of radioactive material is progressing through the Australian Health Minister's Advisory Council approval process.

The Committee discussed the decision by Victoria to recognise graduates from the Charles Sturt University Graduate Diploma of Mammography. Graduates, who receive a Statement of Professional Associate Membership from the Australian Institute of Radiography, will be issued with a limited licence in Victoria to perform (only) mammography. Graduates fall into a category similar to rural and remote operators who fill a workforce gap and are issued with a limited licence. South Australia and the Australian Capital Territory recognise the training, as does Western Australia but operators there are only permitted to work for Breastscreen. New South Wales accepts a licence issued in another jurisdiction under the *Mutual Recognition Act* but the New South Wales Radiation Advisory Council will consider the training at their April meeting, in particular, students on clinical practice possibly in breach of exemption provisions. There were concerns expressed about professional conduct since the group does not belong to a registered profession. The Committee agreed that any endorsement should be narrow and based on risk, need and radiation protection issues. The qualification is likely to be included in the National Directory.

The Committee was updated on activities that support the Bonn Call-for-Action, including expansion of the Diagnostic Imaging Accreditation Scheme to include diagnostic reference level (DRL) data. As a result, there is expected to be an increase in practices participating in the DRL Service. There is limited data available for interventional procedures which typically deliver a median dose of 1 Gy (up to 5 Gy). The magnitude of doses from these procedures is such that it has become a public health issue in the United States. The minutes will be available (after confirmation) at ***www.arpansa.gov.au/AboutUs/Committees/rhcmt.cfm***

Nuclear Safety Committee

The Nuclear Safety Committee (NSC) met on 5 and 6 March 2015. The NSC visited new and existing controlled facilities at ANSTO. Of note were the Synroc waste treatment facility (SyMo) construction site, the ANSTO Nuclear Medicine Facility construction site, and the STAR linear accelerator.

The Committee discussed nuclear safety aspects pertaining to the OPAL reactor such as the production of radiopharmaceuticals, the Little Forest Legacy Site, ANSTO Waste Operations, and construction of the Interim Waste Store.

The Committee reviewed the draft Periodic Safety and Security Review (PSSR) guide, which will provide guidance to ANSTO's OPAL management on regulatory expectations for undertaking future reviews. Additionally, an NSC working group was formed to begin drafting a code on leadership and management for safety based on international best practice.

The Committee reported on national and international developments in nuclear safety, including the Convention on Nuclear Safety, current developments in radioactive waste management, and findings of the United Nations Scientific Committee on the Effect of Atomic Radiation (UNSCEAR).

The Committee also provided advice on ARPANSA's updated regulatory inspection delivery model, which was implemented in 2015. A full summary of the meeting is available at: ***www.arpansa.gov.au/AboutUs/Committees/nscmt.cfm.***

The Nuclear Safety Committee will next convene on 19 June 2015.

Details of Directions Given by the Minister

No directions were given by the Minister under section 16 of the Act during the quarter.

Radioactive Material Import Permits

The importation of radioactive material into Australia requires permission under Regulation 4R of the *Customs (Prohibited Imports) Regulations 1956*. These regulations are made under the *Customs Act 1901*. Under the *Customs (Prohibited Imports) Regulations 1956,* the Minister for Health may authorise ARPANSA officers to approve import permissions.

During this quarter, ARPANSA authorised officers issued 183 non-medical radioisotope permits including: 136 urgent permits, 42 standard permits and 5 twelve month permits.

During this quarter, ARPANSA authorised officers issued 300 single shipment permits for medical radioisotopes. There were no urgent permits and eight twelve month permits.