



Australian Government

**Australian Radiation Protection
and Nuclear Safety Agency**

QUARTERLY REPORT

OF THE

CHIEF EXECUTIVE OFFICER

OF ARPANSA

FOR THE PERIOD 1 OCTOBER 2012 TO 31 DECEMBER 2012



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and Nuclear Safety Agency**

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Letter of Transmittal

16 January 2013

The Hon Catherine King MP
Parliamentary Secretary for Health and Ageing
Parliament House
Canberra ACT 2600

Dear Parliamentary Secretary

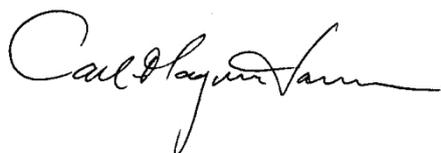
The *Australian Radiation Protection and Nuclear Safety Act 1998* (the Act) requires the Chief Executive Officer (CEO) of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) to submit to the Minister, at the end of each quarter, a report on:

- 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 paragraph 20(f) or 26(1)(d) of the Act
- 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 October 2012 to 31 December 2012.

As you would be aware, Section 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

The report on the operations of the CEO and ARPANSA is based on the key strategic directions:

- apply best practice regulation through the promotion of national uniformity and regulation
- promote the most effective use of radiation in therapeutic treatments and in diagnostic medicine
- improve radiation protection of workers, the public and the environment from natural sources including uranium mining and radioactive waste disposal
- assure the security of radioactive sources in Australia and strengthen Australia's capability to respond to radiation emergencies
- monitor and advise on population exposures to ultraviolet radiation, extremely low frequency electric and magnetic fields and electromagnetic radiation.

Regulate the Use of Radiation

National Uniformity and Regulation

The main vehicle for the promotion of national uniformity of radiation protection throughout the jurisdictions is the *National Directory for Radiation Protection* (NDRP) which is jointly developed by ARPANSA and the State and Territory radiation regulators through the Radiation Health Committee (RHC).

During the quarter, draft NDRP Amendment No. 6 (covering a number of topics including: exemption of lighting products; expansion of the licensing criteria for chiropractors; clarification of the incident reporting requirements and other editorial matters) was revised to account for comments received during public consultation. The RHC considered the revised amendment and agreed that it may need to be expanded further, following more consultation and investigation.

Several ARPANSA staff members made presentations at the Australasian Radiation Protection Society annual conference held in Sydney from 15-18 October 2012.

Significant Licensing Activities

- ARPANSA approved two applications under Regulation 51 made by ANSTO to modify the CG1-3 neutron beam in-pile components, and install and operate them.
- ARPANSA approved an application under Regulation 51 made by ANSTO to modify the First Reactor Protection System and Second Reactor Protection System response time testing frequencies.

- In December 2012, ARPANSA issued a facility licence to ANSTO to operate the Australian Synchrotron at Clayton in Victoria. A licence condition was imposed on ANSTO to provide a progress report by 30 April 2013 or within such time as determined by the CEO of ARPANSA, on Plans and Arrangements for operating the Synchrotron and production of the Safety Analysis Report with Operating Limits and Conditions. A final report has been requested by 30 September 2013 at the latest or within such time as determined by the CEO of ARPANSA, after which the CEO will reassess the conditions for operations.
- ARPANSA held a Licence Holder Forum on 19 November 2012 at the Australian Institute of Nuclear Science and Engineering, Lucas Heights, Sydney. The Forum was attended by 53 representatives from 12 licence holder organisations.
- ARPANSA assisted the Australian Transport Safety Bureau by recovering and making safe radiological material from its Canberra Offices which were gathered as evidence from an aviation accident investigation in Queensland.

Inspections

ARPANSA continued its licensee inspection program, and undertook a series of thirteen inspections and three site visits during the quarter.

These inspections and site visits were undertaken to monitor compliance with licence conditions, investigate operational incidents, and to gather information to progress current licence applications. Inspection reports are posted on ARPANSA's website.

Arising from the inspections there were no non-compliances involving safety implications and in four cases recommendations were provided to enhance best practice.

Nuclear Emergency at Fukushima Japan

The Fukushima Ministerial Conference on Nuclear Safety, Koriyama City, 15-17 December 2012

Following the accident at TEPCO's Fukushima Nuclear Power Stations (the Fukushima Dai-ichi accident) on 11 March 2011, an International Atomic Energy Agency (IAEA) Ministerial Conference on Nuclear Safety was convened in Vienna, Austria, in June 2011 to direct the process of learning and acting upon lessons from the accident. The conference initiated the development of an Action Plan on Nuclear Safety.

Since the adoption of the Action Plan, many lessons have been learned and significant progress has been made in key areas of nuclear safety, such as the safety assessment of nuclear power plants, the IAEA's peer review services, emergency preparedness and response and the IAEA's safety standards.

To follow up on the Action Plan and other initiatives, the Government of Japan, in co-sponsorship with the IAEA, organised the Fukushima Ministerial Conference to provide a

further opportunity for ministerial-level and expert delegates to share information amongst the international nuclear safety and radiation protection community relating to lessons learned from the Fukushima Dai-ichi accident; to further enhance transparency and to discuss the progress of international efforts aimed at strengthening nuclear safety including actions arising from the Action Plan.

The Australian Delegation was led by the CEO of ARPANSA, who delivered the Australian Statement to the Conference. The Conference provided a high visibility platform for Australia as an IAEA member state and offered an opportunity to reflect upon the Fukushima nuclear accident and show solidarity towards the people of Japan affected by the Fukushima Dai-ichi accident.

ARPANSA Technical Report

A Technical Report titled *Assessment of the impact on Australia from the Fukushima Dai-ichi nuclear power plant accident* has been published. ARPANSA has assessed that the impact on the health of people living in Australia from the Fukushima Dai-ichi nuclear power plant (NPP) accident is negligible. The report provides a record and single point of reference for the work undertaken by many scientists at ARPANSA to assess the impact of the releases of radioactive materials from the Fukushima Dai-ichi NPP on Australia's people and environment.

International Engagement

International Atomic Energy Agency (IAEA) Technical Meeting: The new dose limit for the lens of the eye – implications and implementation, Vienna, 2-4 October 2012

The purpose of the meeting was to discuss guidance on implementing the requirement for the new dose limit, and the output of the meeting will form the basis of guidance to be provided to Member States. The intention is to publish a guidance document in 2013. In the longer term, the guidance will inform the implementation of the new dose limit for the lens of the eye in the appropriate *Safety Guides for Radiation Safety in the Medical Uses of Ionizing Radiation*.

32nd meeting of the IAEA Commission on Safety Standards (CSS), Vienna, Austria, 9–11 October 2012

The meeting considered the ongoing revision of IAEA Safety Standards in light of the TEPCO Fukushima Accident (TFA). Safety Requirements relating to nuclear power plant and fuel cycle facilities will be the first publications to be revised – some new requirements will be added and other existing provisions strengthened, generally by addenda to the existing documents. The IAEA presented the process that will be used to revise the relevant standards.

The CSS was presented with an overview of the steady progress being made within the IAEA on integrating the safety and security standards and guidance.

The meeting offered the opportunity for CSS members to present on how their country has applied and implemented the IAEA Safety Standards. Australia's presentation was well received, drawing questions and comments about regulation in Australia's federal system of government and the management of radioactive waste at a federal level.

Second Research Coordinators Meeting for the IAEA Coordinated Research Project E2.10.08 "Development of Advanced Dosimetry Techniques for Diagnostic and Interventional Radiology", Vienna, 15–19 October

This was the second meeting of the research coordinators to review the projects which aim to improve patient dosimetry in radiology. ARPANSA is participating in projects to develop dosimetry tools and assessment methods.

25th Meeting of the IAEA Transport Safety Standards Committee, Vienna Austria, 29 October-2 November 2012

Of note to Australia were discussions on the *Regulations for the Safe Transport of Radioactive Material - 2012 Specific Safety Requirements 6 (SSR-6)* published just prior to the meeting and the committee's ongoing role in reviewing IAEA Safety Standards in response to the Fukushima Dai-ichi nuclear accident. SSR-6 will be adopted into the national ARPANSA *Code of Practice for Safe Transport of Radioactive Material* and the corresponding safety guides.

IAEA Technical Meeting on Safety Culture, Cape Town, South Africa, 26–30 November 2012

ARPANSA presented at an IAEA Technical Meeting On Safety Culture (Safety Culture During Pre-Operational Phases — Practical Working Methods To Increase Safety).

Australian National Radiation Dose Register (ANRDR), Visit to the Health Protection Agency (UK) and Health Canada, November 2012.

ARPANSA is currently investigating options for future expansion of the ANRDR beyond the uranium mining and milling industry. An ARPANSA representative visited the Health Protection Agency (HPA) in Didcot, England and Health Canada in Ottawa, Canada to engage with international dose register experts who manage the most established and comprehensive radiation dose registers in the world. The visit to Health Canada and the HPA provided an excellent opportunity to learn first-hand from their experience in regards to the development, implementation and ongoing management of a national radiation dose register. The knowledge acquired will greatly assist ARPANSA to enhance the functionality of the database, ensure that operational procedures are in-line with best practice, and identify potential impediments that may impact on future expansion of the ANRDR to other industries.

United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) Fukushima Assessment Meeting, Vienna, Austria, November 2012.

This was the final meeting of all-experts in the lead up to finalisation of the assessment and report which is to be presented to the 60th session of UNSCEAR in May 2013. The meeting enabled the review and discussion of the preliminary results, resolution of technical issues and discussion of the draft material, including the key messages to be communicated in the final report. This is an internationally important, dynamic and high profile project that is applying international best practice dose assessment methodology. It is a project that is very important to the Japanese people and has brought together many of the world's experts in the field of radiation protection and dose assessment. ARPANSA is leading Expert Group C in undertaking the assessment of doses to the public and environment as a result of the accident.

34th meeting of the IAEA Waste Safety Standards Committee (WASSC), Vienna, Austria, 26–29 November 2012.

WASSC is chaired by ARPANSA. It advises the IAEA on the Waste Management Program and on the development of associated Safety Standards in areas of predisposal management of radioactive waste, disposal, decommissioning, remediation of areas affected by past activities and accidents, and environmental discharges. Of significance was the decision by WASSC to endorse for publication the draft safety guide on near-surface disposal of radioactive waste. This will be a timely and important safety guide for Australia as we move towards establishing the National Radioactive Waste Management Facility.

International Conference on Radiation Protection in Medicine: Setting the Scene for the Next Decade, Bonn Germany, 3–7 December 2012.

This conference is organised by the IAEA and co-sponsored by the World Health Organization. Such a conference is held every ten years on average and sets the agenda for action to improve radiation protection outcomes in medicine. Sessions included radiation protection in external beam radiotherapy and brachytherapy, therapeutic use of sealed and unsealed radioactive sources, interventional procedures, diagnostic nuclear medicine, CT dose reduction, film-based and digital radiography, diagnostic fluoroscopy and mammography, and discussions on justification of procedures based on benefits outweighing risks.

IAEA Workshop on Notification, Reporting and Requesting Assistance, Singapore, December 2012,

Australia is party to the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. Through these conventions ARPANSA is the IAEA designated National Competent Authority both Domestic and Abroad. The workshop reinforced ARPANSA's obligations under these two conventions and informed participants on communication protocols with the IAEA Incident and Emergency Centre (IEC).

Promote the Effective Use of Radiation in Medicine

Radiotherapy Calibration Service

The radiotherapy calibration service supports the accuracy of radiation dose delivery in treatment centres. It is currently based upon the ARPANSA cobalt-60 gamma-ray source facility. This quarter, calibrations for four treatment centres were undertaken. Progress continues towards the introduction of a direct calibration service in 2013 using the ARPANSA linear accelerator (linac) megavoltage X-ray beams. Preliminary results in a comparison of doses between ARPANSA and the Bureau International des Poids et Mesures were obtained. There was a small (1%) but significant difference in the doses measured by the two agencies. Work continues to identify the reason for the difference.

Australian Clinical Dosimetry Service (ACDS)

The ACDS commenced auditing radiotherapy centres in 2011. This program audits the accuracy of radiation dose delivery from linacs in treatment centres to assure correct delivery of radiation dose in treating patients. The audits are conducted at a range of levels including basic output audits of operational linacs (Level I), pre-operational audits of new linacs (Level Ib), audits of the whole radiation field using a two-dimensional detector array (Level II) and audits involving the pseudo-treatment of a simulated human torso made from tissue equivalent plastic which allows end-to-end audit of the treatment planning and delivery process (Level III).

The ACDS achieved the minimum auditing requirements for the first of the three mandated audit types, Level III, in the final quarter of 2012. The basic output audit, Level I, requirements will be realised in the first quarter of 2013 and Level II audit requirements will be achieved in Q4 2013. Basic output audits were reported for 23 linacs this quarter leading to a total of 86 linacs to date out of the 90 required. Two of the higher accuracy reference audits, Ib, were also performed lifting the number of Level Ib audits to 19 linacs. In Q4, three of the end-to-end Level III audits were conducted, encompassing seven linacs.

Australian Diagnostic Reference Levels (DRL) for Medical Imaging

In November, ARPANSA published paediatric Computer Tomography (CT) DRLs on the ARPANSA website completing a set of CT DRLs with the earlier publication of Adult CT DRLs in June. Collection of relevant data for national diagnostic reference levels for adult and paediatric CT is ongoing. Liaison panels have been established to develop survey methods for interventional radiology and nuclear medicine.

Protection of People from Natural Sources of Radiation

Exposures in Uranium Mining and Naturally Occurring Radioactive Materials (NORM) Industries

ARPANSA maintains the Australian National Radiation Dose Register (ANRDR), which involves the collection, storage and auditing of radiological dose histories for uranium industry workers in Australia. The ANRDR currently holds dose history records for more than 24,700 workers from the uranium mining and milling industry.

Meetings were held on site at BHP Billiton Olympic Dam mine and Heathgate Beverley mine in South Australia on 29-30 November 2012 to continue with the rollout of a Worker Outreach Program for the ANRDR. The main purpose of the Worker Outreach Program is to educate workers on the existence of the ANRDR, its capabilities and benefits and how to request a record of their dose history. The meetings also discussed data integrity, data provision, dose history reports, annual statistical reports, the annual ANRDR workshop, and worker categorisation.

Measurement and Assessment

Following the Fukushima Dai-ichi accident in Japan, ARPANSA has continued screening of food samples from Japan as part of the DAFF Biosecurity (Department of Agriculture, Forestry and Fisheries) Imported Food Program. Additional baseline data have been obtained for seafood samples from northern Australia. Work has also continued on the analysis of naturally occurring radionuclides in food, with the aim to estimate the background radiation dose contribution from foods in the typical Australian diet.

ARPANSA completed radioanalytical work on pre-digested environmental samples from CSIRO. Work is continuing on the development of an in-situ sampling device for the pre-concentration of radioactive cesium from seawater. This device will be deployed at ports visited by nuclear powered warships, where initially it will be used to determine the baseline levels of cesium-137 in the seawater and eventually for regular monitoring of these sites.

Monitoring and Mitigating Population Exposures to Electric and Magnetic Fields (EMF) and Electromagnetic Radiation (EMR) and Solar Ultra Violet Radiation (UVR)

Public Information

ARPANSA continued to respond to a large range of enquiries related to potential health effects from exposure to EMF and UVR. Predominantly, enquiries are related to electric and magnetic fields from electrical power infrastructure, including the radiofrequency transmissions from smart meters as well as radiofrequency arising from mobile phone base stations and handsets.

Stakeholder Engagement

ARPANSA convened a meeting of the Electromagnetic Energy Reference Group on 16 November 2012 in the Miranda and Yallambie offices of ARPANSA. The meeting was attended by representatives from community groups, industry and Commonwealth government and heard presentations from international and Australian scientific experts on developments in science and policy relating to the possible health effects from electromagnetic radiation (EMR). Stakeholders at the meeting provided their perspectives on the growing use of technologies involving electromagnetic radiation and their views on the ways governments and communities could address concerns over health impacts. ARPANSA will use this feedback in the development of its programs and communications with the public on EMR issues.

Standards and Guides

ARPANSA is currently undertaking a review of the scientific literature on the health effects of radiofrequency exposure published since the ARPANSA *Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3kHz to 300GHz*, was prepared in 2000 - 2002. A panel of scientific researchers has been established to provide expert and to prepare recommendations on the need for the ARPANSA Standard to be formally reviewed or amended.

The ARPANSA UVR network continued to provide real-time 'live' UV Index data for ten Australian sites and three Antarctic bases via the ARPANSA website. The UV Index data (which is updated every minute) is also provided to mobile phone users through third-party applications. As it is now summer, the number of information enquiries to the UVR area on UV protection, sunglasses, sunscreens, UV levels and protection have risen sharply as have the number of general public hits to the UV Index pages (53,000 in the last 2 months). The ARPANSA website advises of protective strategies for avoiding excessive sun exposure and now includes another recent publication by ARPANSA staff in the US Skin Cancer Foundation's journal *The Melanoma Letter* entitled "Everyday and High-UPF Sun-Protective Clothing". ARPANSA has updated a sunscreens fact sheet on its website so the public can have access to reliable information on the recently introduced SPF 50+ sunscreens and their protective capabilities.

The ARPANSA proposal to revise and update the 1996 Australian/New Zealand Standard on Sun Protective Clothing was approved by Standards Australia and the first teleconference and meeting of the new committee will take place in February 2013. A research project measuring the UVR exposures of outdoor workers in Queensland using new electronic UV dosimeters was carried out in collaboration with Queensland Health, with further work planned for 2013.

ARPANSA also responded to numerous requests for information on the UVR hazards of nail curing lamps used in beauty salons (previously measured by ARPANSA) following reports of skin cancers in users in the United States.

Security of Radioactive Sources, and Emergency Preparedness

COAG Recommendations for Radiological Material

The National Register for High Activity Sealed Radioactive Sources database is operating and ARPANSA continues to work with the jurisdictions to ensure the integrity, harmonisation and availability of the data.

ARPANSA is also continuing to work with jurisdictions and licence holders on the compliance of security plans in accordance with the *Code of Practice for the Security of Radioactive Sources*. Training courses on the Transportation Security of Category 1, 2 and 3 radioactive sources have been delivered nationally. ARPANSA is negotiating with a Registered Training Organisation for the delivery of ARPANSA's Vocational Graduate Certificate in Radiation Security Advice. This will provide a pool of nationally qualified security advisers for the endorsement of Source Security Plans in all states and territories. ARPANSA submitted competencies for a Radiation Security Advisor certification scheme to the Australian Skills Quality Authority. This capacity building scheme aims to assist the jurisdictions in their security responsibilities with the availability of appropriately trained and qualified Radiation Security Advisors.

Security of Radioactive Materials and Nuclear Facilities

The joint ARPANSA-ASNO Physical Protection & Security Review Working Group (PPS WG) is reviewing the ANSTO security arrangements of the OPAL Research Reactor as part of a periodic security review. The PPS WG has met several times to develop and implement the review methodology in accordance with international best practice, and has also undertaken the first joint ARPANSA-ASNO security inspection of the OPAL Research Reactor. The PPS WG has also recently undertaken a joint inspection of an Emergency Preparedness and Response exercise at ANSTO which focused on the response to a security event.

ARPANSA hosted the IAEA funded regional Transport Security of Nuclear Material training course in November 2012. The course involved regulatory and operational representatives and resulted in the building of capacity for Transport Security within our region. 16 regional and 6 Australian delegates attended.

In November, ASNO and ARPANSA met with IAEA representative to plan for an IAEA Integrated Protective Policy and Security Review Mission scheduled to be held during 2013.

On 13 December 2012 Customs and Border Protection Services in conjunction with ARPANSA; and State and Territory representatives, submitted a Report on Australia's capability for monitoring radioactive source imports and exports to the Secretariat Chemical Biological Radiological Nuclear Security Subcommittee. The review completes one of the twelve key COAG endorsed recommendations on strengthening radioactive source security contained in the 2007 Report on the Regulation and Control of Radiological Material.

Emergency Preparedness and Response Capability

ARPANSA maintains specialised radiation emergency capabilities in line with Australian emergency planning arrangements. Based on the lessons learnt in supporting the Australian Government response to the Fukushima nuclear emergency in March 2011, ARPANSA has developed and circulated its draft Incident Management Plan (IMP) to relevant (predominantly Commonwealth) agencies with a role in emergency response. It has also completed a Desktop Exercise to test the IMP with those agencies on 28 November in Canberra.

International Monitoring Network

As part of Australia's commitment to the Comprehensive Nuclear-Test-Ban Treaty (CTBT), ARPANSA continued to operate and maintain radionuclide air monitoring stations at Melbourne, Perth, Townsville, Darwin, the Cocos Islands, and Macquarie Island, including two noble gas analyser facilities, collocated with the air monitoring stations in Melbourne and Darwin. The installation of the station at Mawson, Antarctica entered into the testing and evaluation phase during the quarter.

In addition to operating and maintaining the stations, ARPANSA also operates the Australian Radionuclide Laboratory under contract to the CTBTO. This laboratory has the role of testing samples obtained by other monitoring stations in the CTBT network. Ten such samples were analysed during the quarter. The laboratory has received a provisional report on the proficiency test exercise conducted in May 2012, which indicates the laboratory achieved acceptable performance.

Details of any Breach of Licence Conditions by a Licensee

Breaches with safety implications

No breaches with safety implications were recorded during the quarter.

Breaches with no or minor safety implications

4 breaches with minor or no safety implications were recorded during the quarter as follows:

- Late submission of annual report
- Failure to keep source inventory workbook updated
- Disposal of UV controlled apparatus without prior approval
- Marginally exceeding activity limit for a building.

In each of the above cases, the breach was assessed to have minor safety implications, corrective actions were implemented by the licence holder and no enforcement action was considered necessary.

Facilities Licensed Under Part 5 of the ARPANS Act

Licensee	Number	Type	Comment
Australian Nuclear Science and Technology Organisation (ANSTO)	F0271	Facility	Licence to operate the Australian Synchrotron at Clayton in Victoria

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

Radiation Health and Safety Advisory Council

The Council met on the 4-5 December 2012 in Melbourne. A full summary of the meeting is available at www.arpansa.gov.au/AboutUs/Committees/rhsacmt.cfm.

At the meeting, the Council:

- Established a working group to develop a statement on risks relating the transport of radioactive materials.
- Endorsed a proposal to establish a co-ordination group to oversee a radon progeny dose measurement program in mining.
- Was briefed by Chief Medical Officer and learnt about his important role of advising the Department of Health and Ageing on health issues that could impact on Australia.
- Discussed advances in radiotherapy practice in Australia, the factors affecting risk and errors from paediatric CT imaging and a recent study into the long-term cancer risk arising from CT scans during childhood.
- Was updated on ARPANSA's medical radiation activities, including the Australian Clinical Dosimetry Service, the development of national Diagnostic Reference Levels (DRLs) and the survey of Australian Per Capita Dose from Nuclear Medicine and Diagnostic Radiology.
- On 5 December, Council visited Melbourne's Austin Health and was provided with a brief history of the health service and its various sites prior to a tour. Areas visited included the PET/Nuclear Medicine Department, the Radiology Department, the new Radiation Oncology centre, various laboratories of the Ludwig Institute for Cancer Research and the

newly opened Olivia Newton-John Cancer and Wellness Centre. Council agreed that the tour provided a valuable insight into medical radiation practices in clinical and research settings.

Reports to the CEO from the RHSAC (s.20(f) of the Act)

No reports from the RHSAC were provided to the CEO of ARPANSA during the quarter.

Radiation Health Committee

The Committee met on the 8 November 2012 at ARPANSA's Yallambie office. A full summary of the meeting is available at www.arpansa.gov.au/AboutUs/Committees/rhcmt.cfm.

At the meeting, the Committee:

- Discussed how national uniformity and the NDRP are viewed within jurisdictions and agreed that ARPANSA should conduct baseline work regarding the status and issues relating to the NDRP's implementation.
- Considered public submissions on the proposed NDRP Amendment No.6, covering four separate schedules (5, 6, 9 and 13) of the NDRP.
- Approved a proposal for a new structure for the draft *Fundamentals for Protection against Ionizing Radiation*. Agreed that drafting should commence on the proposed *Planned Exposure Code* and that an accompanying project plan be prepared.
- Agreed that the draft *ELF Guidelines* be circulated to the working group, consultative group and jurisdictions and the Office of Best Practice Regulation.
- Agreed that it was time to consider revision of the NDRP with respect to the regulation of solaria and the possibility of a national ban.
- Agreed that the current project plan to review the radiation incident reporting framework in Australia (NDRP Schedule 13) be expanded.

Nuclear Safety Committee

The Committee met on 26 October 2012 at ARPANSA's Miranda office. A summary of the meeting is available at www.arpansa.gov.au/AboutUs/Committees/nscmt.cfm.

At the meeting, the Committee:

- Received briefings on regulatory issues at ANSTO, including those relating to the OPAL reactor, ANSTO Health and application for operating licence for the Australian National Synchrotron.
- Discussed ANSTO licence applications relating to the proposed Synroc facility and Interim Waste Store.
- Reviewed Guidance documents on Holistic Safety and associated sample questions.

- Reviewed Regulatory Guide covering Regulation 51 applications.
- Reviewed Regulatory Guidance covering Licensing of Radioactive Waste Storage and Near Surface Disposal Facilities.

Details of Directions Given by the Minister

No directions were given by the Minister under section 16 of the *ARPANS 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 to Health and Ageing may authorise ARPANSA officers to approve import permissions.

ARPANSA authorised officers issued 284 permits for medical radioisotopes including 5 urgent single shipments, 276 single shipments and 3 twelve monthly permits.

ARPANSA authorised officers also issued 146 permits for customs release of non-medical radioisotopes, comprising 77 urgent single shipments, 67 standard single shipments and 2 twelve monthly permits, with four cancelled permits.