



Australian Government

**Australian Radiation Protection
and Nuclear Safety Agency**

QUARTERLY REPORT

OF THE

CHIEF EXECUTIVE OFFICER

OF ARPANSA

FOR THE PERIOD 1 APRIL 2012 TO 30 JUNE 2012



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and Nuclear Safety Agency**

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Printed by:

CanPrint Communications Pty Ltd
16 Nyrang Street
Fyshwick ACT 2609

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Letter of Transmittal

25 July 2012

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

Dear Parliamentary Secretary

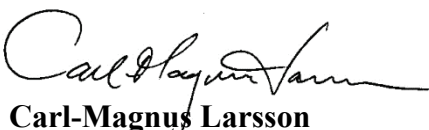
The *Australian Radiation Protection and Nuclear Safety Act 1998* (the Act) requires the Chief Executive Officer (CEO) of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) to submit to the Minister, at the end of each quarter, a report on:

- 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 April 2012 to 30 June 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 was developed to cover a number of topics including: exemption of lighting products containing krypton-85 from authorisation requirements; update of the licensing requirements for chiropractors; clarification of the incident reporting requirements and other editorial matters. A preliminary regulatory assessment report relating to the draft amendment was prepared and sent to the Office of Best Practice Regulation.

KPMG report on safety matters that occurred at the Australian Nuclear Science and Technology Organisation (ANSTO) in 2007

After notification in 2009 of a minor contamination incident at ANSTO in 2007, ARPANSA investigated and completed a final report in 2010. Following a concern being raised about the report, ARPANSA sought an independent re-investigation of the 2007 incident by KPMG.

The KPMG report was commissioned in October 2011 and received in June 2012. It found that it is likely that a minor contamination event occurred on the morning of 3 September 2007 in addition to a similar minor contamination event later on that day. KPMG made some recommendations that are consistent with changes ARPANSA has already made to its operations since 2010. The recommendations to ANSTO in ARPANSA's 2010 report remain

appropriate and while ANSTO has responded to these concerns, ARPANSA has reviewed the KPMG report, and continues to monitor implementation of actions at ANSTO, to ensure that all issues raised concerning ANSTO have been properly addressed.

Significant Licensing Activities

- ARPANSA approved an application under Regulation 51 of the ARPANS Regulations made by ANSTO to move to a strategy which provides for more efficient and flexible fuel utilisation for the OPAL reactor.
- An independent inspection of the ARPANSA Medical Radiation Services laboratories at Yallambie was undertaken by Queensland Health inspectors. No non-compliances with licence conditions were found and a number of recommendations for improved safety and security practices were made. A summary inspection report will be posted on the ARPANSA website when it is finalised.
- ARPANSA issued a facility licence to ANSTO to operate the 18 MeV cyclotron at Camperdown, New South Wales.
- ARPANSA consented to the surrender of the facility licence for the decommissioned 3MV Van de Graff generator at Lucas Heights, New South Wales.

Inspections

ARPANSA undertook a series of 28 inspections and two 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 have been, or will be, posted on ARPANSA's website.

ARPANSA has introduced a new Compliance and Enforcement Policy and Regulatory Guide: *Graded Response to Non-Compliance*.

These indicate that ARPANSA adopts a graded and risk-based approach to compliance and enforcement. When non-compliance is identified, the regulatory response will be commensurate with its severity. ARPANSA will use the minimum response necessary to achieve the desired result, which, in most cases will be a return to compliance.

Stakeholder Engagement

Presentation by the CEO of ARPANSA to the Sutherland Shire Council

On 25 June 2012, the CEO of ARPANSA delivered a presentation to Sutherland Shire Council describing ARPANSA's roles and responsibilities as a Commonwealth regulator of radiation sources, facilities and nuclear installations. This presentation focused upon the expected application by ANSTO for the siting and construction of an interim radioactive waste store to be built at Lucas Heights intended to house spent fuel scheduled to return to

Australia in 2015 under pre-existing intergovernmental arrangements between Australia, the United Kingdom and France. The CEO's presentation explained the public consultation process that would take place around ANSTO's application, the likely timeframes and accountability mechanisms underpinning ARPANSA's decision-making processes.

Oak Valley Community Engagement

A radiological survey of Maralinga and a reassessment of the health impact on local peoples of radionuclide contamination from historical British nuclear weapons testing was conducted, as part of the Maralinga Land and Environment Management Plan, under the Memorandum of Understanding with the Department of Resources Energy and Tourism.

New information on the 2011 living habits of the indigenous peoples living at Oak Valley village and recent dust measurements were used to estimate radiation doses. Oak Valley is a remote Aboriginal community located on the southern fringe of The Great Victoria Desert on Maralinga Tjarutja Lands in South Australia. Two reports have been published on the ARPANSA website at <http://www.arpansa.gov.au/pubs/technicalreports/tr158.pdf> and <http://www.arpansa.gov.au/pubs/technicalreports/tr157.pdf>.

ARPANSA presented its findings from the reassessment program to the residents at Oak Valley village. ARPANSA reported to the community that radionuclide contamination from the historical British nuclear weapons testing has had a negligible impact on the health of those living at the Oak Valley village and that the current restrictions on full time living in the Taranaki restricted area at Maralinga remain appropriate.

Reporting to the Uranium Council

ARPANSA presented a current update on work programs for radiation protection of the environment to the Uranium Council meeting held in Adelaide in June 2012. ARPANSA reported that the development of the safety guide for radiation protection of the environment is on schedule and that stage one of the project, *Concentration Ratios for Non-Human Biota inhabiting Australian Uranium Mining Environments*, has been completed. ARPANSA regularly participates at Uranium Council meetings as an observer.

EME Reference Group (EMERG)

There was a meeting of the EMERG on 3 April 2012. This was hosted by ARPANSA and it included representatives from community groups, industry and government to discuss the health impact of electromagnetic radiation from telecommunications sources.

International Engagement

Nuclear Emergency at Fukushima, Japan

The Japanese Authorities announced in December that the reactors stricken by the earthquake and tsunami of 11 March 2011 have now been brought to 'cold shutdown' and that conditions

are stable. ARPANSA continues to monitor the radiation situation in Japan and beyond in order to properly advise the Australian Government and public on radiation protection and nuclear safety issues. ARPANSA radiation protection advice is provided through the ARPANSA website which is updated on a regular basis.

59th Session of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). Vienna, 21 – 25 May 2012

The 59th Session of UNSCEAR was held in Vienna from 21 to 25 May 2012. The CEO of ARPANSA, Carl-Magnus Larsson, attended as the representative for Australia and as Vice-Chairman.

In December this year, Carl-Magnus Larsson will take up the responsibilities of chairing the Committee as the 4th Australian Chair of UNSCEAR and will be responsible for management of the Committee's work program, as well as chair the 60th and 61st Sessions in 2013 and 2014, respectively.

Stephen Solomon from ARPANSA attended as the nominated alternate representative for this meeting. An important issue for UNSCEAR is to undertake a full assessment of radiological impacts caused by the 2011 Great East-Japan Earthquake and Tsunami, which is expected to be published in late 2013.

The UNSCEAR Fukushima accident assessment project includes *a Coordination Expert Group and four expert groups*; one for the data compilation, screening, quality assurance and documentation, one for the assessment of radionuclide releases and dispersion, one for the dose and risk assessment to humans and biota and one for the assessment of worker doses and health effects. Dr Solomon is leading the dose and risk assessment to humans and biota group.

World Health Organization (WHO) International Electro Magnetic Field (EMF) project from 5-6 June 2012 and Annual WHO International Advisory Committee Intersun Ultra Violet (UV) Meeting on 7 June, in Geneva, Switzerland.

ARPANSA is an international WHO Collaborating Centre (WHOCC) on Radiation Protection and a member of the WHO EMF Project. Lindsay Martin from ARPANSA was the chair of the Annual International Advisory Committee meeting of the World Health Organization (WHO) International EMF project in Geneva from 5-6 June 2012. ARPANSA is also a WHOCC for the WHO Intersun (UV) project and Lindsay Martin gave a presentation on current ARPANSA UV Radiation work programs at the Annual International Advisory Committee Intersun UV Meeting on 7 June.

International Atomic Energy Agency (IAEA) National Competent Authority Meeting, 16–20 April 2012, Vienna, Austria.

ARPANSA is the designated National Competent Authority for Radiation Emergencies for the IAEA Early Notification and the Assistance Conventions (ENAC). ARPANSA contributed to the Sixth Meeting of Representatives of Competent Authorities identified under

ENAC and a subsequent Workshop on the Latest Emergency Preparedness and Response Arrangements and Capabilities from 16 to 20 April 2012.

13th Congress of the International Radiation Protection Association, IRPA13, Glasgow, UK, 13-18 May 2012.

The 13th International Congress of the International Radiation Protection Association (representing professional organizations with 18,000 members world-wide) was held in Glasgow in May, with its main theme being: *Living with Radiation – Engaging with Society*. ARPANSA gave presentations on medical exposure situations, radiation protection of the environment, emergency preparedness and waste health impact assessments. IRPA 13 presented the opportunity for ARPANSA to meet and discuss its current work programs with 1,500 radiation protection experts representing 77 countries, enabling collaborative research programs such as medical CT research to progress. ARPANSA's presentations on waste impact assessments and protection of the environment built on recent international developments and were well received.

Fourth Review Meeting of the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management

The Fourth Review Meeting of the Contracting Parties to the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management was held from 14 to 23 May 2012, at the IAEA's Headquarters in Vienna, Austria. The Australian Delegation was lead by Prof. Peter Johnston of ARPANSA. The number of contracting parties (States) to the Joint Convention has increased from 47 to 63 since the Third Review Meeting held in 2009. The Joint Convention acknowledges the international importance attached to the safe management of spent nuclear fuel and radioactive waste. The objective of the Joint Convention is to achieve and maintain a high level of safety worldwide in spent fuel and radioactive waste management through a process of national reporting and peer review.

The Fourth Review Meeting allowed Australia to increase its awareness and understanding of waste projects across the world and gain insight into current practices at a regional and international level and best practice internationally. Australia was commended for hosting an IAEA Integrated Regulatory Review Service mission and follow-up, updating regulatory guidance for storage and disposal incorporating international best practice and having a strong legislative requirement for comprehensive community and stakeholder consultation.

Regional Workshop on Emergency Preparedness and Response (EPR) on Doses Assessment and Annual Meeting of the EPR Topical Group

ARPANSA contributed to the 5th Asian Nuclear Safety Network (ANSN) Emergency Preparedness Topical Working Group on radiation dose reconstruction post-nuclear or radiological incident, which was held in Jakarta from 21 to 25 May 2012. ARPANSA has substantial knowledge of and capabilities in dose reconstruction. During the course of the meeting, it became clear that several developing countries in the region were lacking

knowledge or capability to effectively perform accurate and useful dose reconstructions. ARPANSA will explore ways to assist these countries develop this knowledge through existing platforms such as the ANSN Topical Working Group and/or the IAEA.

IAEA Integrated Regulatory Review Service mission to Greece

The IAEA Integrated Regulatory Review Service (IRRS) provides Member States with an independent assessment of the effective of its national regulatory infrastructure to ensure the safety of nuclear and radiological material from ‘cradle to grave’. The importance of hosting a review mission has increased since the nuclear accident at Fukushima Dai-ichi and subsequent international efforts to enhance global nuclear safety.

Professor Peter Johnston, Branch Head Medical Radiation Services, was Deputy Team Leader in an IRRS mission to Greece undertaken from 20 to 30 May 2012. The review mission addressed the facilities and activities regulated by the Greek Atomic Energy Agency (GAEC) which involve industrial facilities, medical facilities, research facilities, transport and security of radioactive materials. While the report of the mission is still to be finalised, the team noted several good practices in the country's nuclear regulatory system while it also identified issues for improvement for the GAEC and the Greek competent authorities.

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 seven treatment centres were undertaken. Progress continues towards the introduction of a direct calibration service in 2012 using the ARPANSA linear accelerator (linac) megavoltage X-ray beams. Direct linac-based calibration of provider dose meters will reduce the uncertainty for clinical treatment for patients across Australia.

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, pre-operational audits of new linacs, audits of the whole radiation field using a two-dimensional detector array and audits involving the ‘mock’ treatment of a simulated human torso made from tissue equivalent plastic which allows end-to-end audit of the treatment planning and delivery process.

This quarter, the ACDS reported on 17 linacs from seven centres using the standard reference dosimetry audit. Seven of the higher accuracy reference audits were also performed, of which five were newly commissioned linacs. Both the Level II and Level III audits engaged with

volunteer clinical centres to assist with successful field trials. Basic output audits have been conducted on a total of 55 linacs to date, and the higher accuracy dosimetry audits on 15. Preparations for widespread implementation of the whole radiation field audit and end-to-end audit are being finalised with the formal clinical release of the end-to-end, patient simulation audit scheduled for July 2012. Additionally the new Optically Stimulated Luminescence Dosimeter (OSLD) technology will be used for the basic reference dosimetry from July onwards, markedly reducing the logistical requirement for this frequently deployed audit.

Australian Diagnostic Reference Levels (DRL) for Medical Imaging

The first set of national diagnostic reference levels for adult computed tomography (CT) protocols have been published in collaboration with the principal stakeholders on the ARPANSA website. The survey is now collecting data for the calendar year 2012 and the development of further modules to cover the modalities of interventional radiology, mammography and nuclear medicine has been initiated. Preliminary meetings have been held with the Cardiac Society of Australia & New Zealand (CSANZ) for interventional cardiology DRLs and with Siemens Ltd Australia for mammography DRLs.

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 24,300 workers from the uranium mining and milling industry. The *Northern Territory Radiation Protection Amendment Act 2012*, was introduced into the Northern Territory Legislative Assembly in February 2012 and subsequently approved to commence in July 2012. This Act enables upload of occupational dose records from the Ranger uranium mine to the dose register. In June 2012, the first ANRDR workshop took place, attended by representatives of the uranium mining industry, contractors, and government organisations. The workshop discussed progress in the implementation of the ANRDR, methodologies used for radiation dose assessments and plans for improvement of the dose register.

Measurement and Assessment

The Radiochemistry Laboratory continued to participate in proficiency testing programs. Analysis of a proficiency test conducted by the IAEA, for gamma emitters and tritium in water and gamma emitter in soil, was completed. The results indicated a failure for two of the water samples due to human error. Procedures have been changed to minimise the possibility of the failure re-occurring.

Following the Fukushima nuclear emergency in Japan, ARPANSA has continued screening of food samples from Japan as part of the Australian Quarantine and Inspection Service (AQIS)

Imported Food Program. The need for food sampling should decrease as contamination from the emergency reduces (reducing the likelihood of food contamination).

Work has commenced on the analysis of naturally occurring radionuclides in food. The aim of this project is to estimate the background radiation dose contribution from foods in the typical Australian diet. A NSW mines NORM project draft report was completed, and is currently going through the consultation and final editing process and is expected to be published in August.

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

ARPANSA continued to respond to a large range of enquiries related to possible 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.

The ARPANSA UVR network continued to provide real-time 'live' UV Index data for 10 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. The ARPANSA website advises of protective strategies for avoiding excessive sun exposure. Research projects measuring the UVR exposures of outdoor workers were carried out in collaboration with the Cancer Council Victoria and with the Australian National University for indoor workers.

Security of Radioactive Sources, and Emergency Preparedness

COAG Recommendations for Radiological Material

The National Register for High Activity Sealed Radioactive Sources 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*, and has conducted a number of surveys of licence holder premises.

ARPANSA is negotiating with a Registered Training Organisation (RTO) 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.

Training courses on the Transportation Security of Category 1, 2 and 3 radioactive sources have been delivered to all jurisdictions except Tasmania; refresher training programs in transportation security continue to be delivered as required.

The joint ARPANSA-ASNO Physical Protection & Security Review Working Group (PPS WG) will commence reviewing the ANSTO security arrangements of the OPAL Research Reactor this financial year. The PPS WG has met several times to develop and implement the review methodology in accordance with international best practice.

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.

ARPANSA has embarked upon a review of the Import and Export of radioactive material which aims to better integrate communication and information sharing between ARPANSA and the Australian Customs and Border Protection Service.

Emergency Response Capability

ARPANSA provided response teams in line with Australian emergency planning arrangements. The ARPANSA Radiation Emergency Operations Unit (REOU) continued its training cycle by providing emergency response training to ARPANSA staff and a number of government agencies. The REOU also provided briefings on the unit's role and capabilities to government agencies.

During the quarter ARPANSA staff provided support to ASNO liaison meetings in the Philippines and Malaysia. This related to development of regional capabilities in National Data Centres used to evaluate potential nuclear test events.

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 one remaining station at Mawson, Antarctica, has been installed and is currently undergoing tuning and initial testing.

In addition to operating and maintaining the stations, ARPANSA also operates the Australian Radionuclide Laboratory under contract to the CTBT Organisation (CTBTO). This laboratory has the role of testing samples obtained by other monitoring stations in the CTBT network. Thirteen samples were analysed during the quarter, including a Proficiency Test sample. The laboratory was also informed by the CTBTO that it achieved an acceptable performance in the Intercomparison Exercise conducted in December 2011.

Details of any Breach of Licence Conditions by a Licensee

Breaches with safety implications

Licensee	Number	Nature of breach	Action
Australian Customs and Border Protection Service	S0092	Breach of S31(1) of the Act. Possession of a class 4 laser on a Forward Looking Infra-red (FLIR) device without the appropriate licence.	A licence application was submitted by Customs and subsequently approved. The unauthorised possession was self-reported by Customs and no enforcement action was taken.

Breaches with no or minor safety implications

One licensee was found in breach of section 30(2) of the Act by failing to comply with licence conditions, which was subsequently determined to have minor safety implications. Due to the corrective actions undertaken by the licensee 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)	F0251	Facility	Approval for routine operation of 18 MeV cyclotron for production of positron emitting radioisotopes for research and development
Australian Nuclear Science and Technology Organisation (ANSTO)	F0200	Facility	Consent to surrender of the facility licence for the decommissioned 3 MV Van de Graff Accelerator at Lucas Heights

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 between 19 and 20 April 2012 at ARPANSA's Miranda office. This was the first meeting of the 2012-14 triennium. A full summary of the meeting is available at: <http://www.arpansa.gov.au/AboutUs/Committees/rhsacmt.cfm>.

The Council noted that the National Radioactive Waste Management Bill had recently passed through the Senate and that effective communication with the local community of any location finally accepted would be an important aspect of the licence application assessment process. The Council received presentations on previous experiences with communication on radiation matters with indigenous communities. This included the perspectives from the Maralinga Rehabilitation Project running from 1980-2000s, the mining industry in general and the Supervising Scientist's Division in relation to Northern Territory uranium mines. Council was briefed on the development of ARPANSA's communication strategy and acknowledged ARPANSA's progress to date in the area of communication with both internal and external stakeholders.

At the meeting, the Council also:

- Endorsed the continued use of the 2011-2012 strategic directions document prepared by the previous Council for the remainder of 2012.
- Endorsed the *Safety Guide for the Use of Radiation in Schools – Part 2: Lasers*, which would be combined with the previously published *Part 1: Ionizing Radiation* (RPS 18).
- Discussed the current activities of ARPANSA's scientific and regulatory branches, including the functions of the Australian Clinical Dosimetry Service (ACDS), development of national Diagnostic Reference Levels (DRLs) for radiology, and arrangements for ARPANSA's emergency response capability.

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

Radiation Health Committee

The Committee did not meet during the quarter. The next meeting is scheduled for 18 July 2012.

Nuclear Safety Committee

The Committee met on 22 June 2012 at ARPANSA's Miranda office. A summary of the meeting is available at: <http://www.arpansa.gov.au/AboutUs/Committees/nscmt.cfm>

At the meeting, the Committee:

- Reviewed and discussed three draft ARPANSA regulatory guides relating to holistic safety, regulation 51 changes (changes with significant implications for safety) and the licensing requirements for radioactive waste storage and disposal
- Received a briefing from Sutherland Shire council on its policy position regarding a proposed interim intermediate level radioactive waste store at ANSTO
- Received briefings on regulatory issues at ANSTO, including those related to the HIFAR reactor status, the OPAL reactor, ANSTO Health and ANSTO Life Sciences and progress with the Periodic Safety Review of OPAL
- Received reports on ARPANSA activities generally and were informed of business being discussed by the Radiation Health and Safety Advisory Council and the Radiation Health Committee.

No reports from the NSC were provided to the CEO of ARPANSA during the quarter. However, the NSC endorsed, with amendments, the Draft Regulatory Guide for waste storage and disposal facilities, for public consultation.

Details of Directions Given by the Minister under Section 16

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 277 permits for medical radioisotopes including no urgent single shipments, 272 single shipments and 5 twelve monthly permits.

ARPANSA authorised officers also issued 180 permits for customs release of non-medical radioisotopes, comprising 85 urgent single shipments, 87 standard single shipments and 7 twelve monthly permits, with 1 cancelled permit.

Transport of Radioactive Material

ARPANSA validated the Certificate of a Package Design USA/9315/B(U)F-96, revision 5 issued by the United States of America Competent Authority for a B(U) Type Package Design ES-3100. ARPANSA issued the following certificate of validation to ANSTO:

- AUS/2012-44/B(U)F-96