



## SUMMARY OF MEETING OF 27 APRIL 2007

### **OPENING OF MEETING, ATTENDANCE, APOLOGIES & CONFIRMATION OF MINUTES**

Council met at ARPANSA's Miranda office on 27 April 2007. All members were present except Dr Arthur Johnston, Dr Peter Jezukaitis, Em Prof Ian Lowe, and Mr Ian Sawyer who were apologies. Ms Kidziak welcomed Mr Ian Lancaster, nominee of the Chief Minister of the Northern Territory, who was attending his first meeting. The minutes of 8 December 2006 were confirmed without amendment.

### **BUSINESS ARISING FROM THE MINUTES**

Council noted that:

- the skills shortage issue discussed at the last meeting had been added to the list for discussion at future meetings;
- the OPAL reactor had been opened by the Prime Minister on 20 April 2007;
- the HIFAR reactor had been shut down on 31 January 2007;
- the Council of Australian Governments' Hazardous Materials Report was agreed on 13 April 2007, and included arrangements for radiological materials that would minimise the possibility of access for terrorist use;
- the Uranium Mining Processing & Nuclear Energy Review (UMPNER) Report had been released on 29 December 2006;
- the government had responded to the Prosser report at the end of March, including acceptance of a recommendation for a National Dose Register for the uranium mining industry.
- a reply had been sent to Dr Cooke of the Sydney Outdoor Lighting Improvement Society (SOLIS).

### **COUNCIL WORKPLAN 2007-08**

Council was asked to consider whether the following issues should form part of that workplan.

#### **Assessment of Nuclear Power Plants – For Discussion**

Council discussed the tabled paper, indicating issues of public concern included the safety of nuclear power plants (NPP) in regard to a Chernobyl-type accident or terrorist attack, safety of waste and spent fuel management, and weapons proliferation - which was outside ARPANSA and Council's scope. It was suggested that a high level review of the international position on safety issues in the operation of NPP and safe management of high level waste would contribute to debate on these issues. This could be undertaken through consideration of IAEA and OECD Nuclear Energy Agency publications, national reviews and also anti-nuclear literature to produce a summary review of a type similar to the tabled letter from the International Nuclear Safety Advisory Group (INSAG) to the IAEA, but from an Australian perspective. Council's view was that a literature search could be undertaken as a first step and presentations by appropriate speakers considered. It was agreed that waste and NPP should be considered separately.

Council agreed that a proposal for the project would be prepared for the next meeting.

#### **Review of Progress Towards National Uniformity – For Discussion**

Council was advised that a review to evaluate the effectiveness and efficiency of the National Directory for Radiation Protection (NDRP), edition 1, after 3 years of its operation was

required. RHC felt that it would be appropriate if Council carried out the review independently instead of RHC reviewing its own work. Council noted a summary of the history of the development of the NDRP and progress of jurisdictions in implementing the NDRP. A number of jurisdictions were in the process of introducing new Acts and regulations that would allow them to be consistent with NDRP. Developments in relation to implementation of the Radiofrequency (RF) Standard (Radiation Protection Series publication 3) were also discussed. Progress in resolving regulatory responsibility for RF in jurisdictions was varied, as not all jurisdictions regulate non-ionizing radiation at this time. Uniformity in non-ionizing radiation was still developing. Council agreed that an important issue already tackled by NDRP1 was to have a consistent definition across the country of what is radioactive material for regulatory purposes. The regulatory framework for uranium mining had been considered in recent reviews of uranium mining and nuclear energy. Council members noted that while Council did not have any direct role, it should support the NDRP process. Council agreed that it should undertake the 3 year review of the effectiveness and efficiency of NDRP1 for the Radiation Health Committee. A framework for the review will be prepared for next meeting.

### **Medical Radiation Issues – For Discussion**

Council noted that it was 12 months since Council's report to the CEO on medical radiation, and that Council should maintain a watching brief on medical radiation issues. Council was advised of progress in development of the Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation in Medicine and the article on the increase in radiation doses in the USA since 1980. Council was informed of the proposed medical radiation conference, to be run by ARPANSA in October. Council suggested that ARPANSA make contact with the RANZCR organising committee and keep Council informed. Council agreed that it should keep medical radiation on its forward plan and place any new issues on the agenda for discussion.

## ***INTERNATIONAL DEVELOPMENTS IN RADIATION PROTECTION AND NUCLEAR SAFETY***

### **ICRP Recommendations**

Council was advised that the ICRP had finalised its new recommendations at its March 2007 meeting. The recommendations were revised to take account of new biological and physical information, to improve and streamline the presentation of the recommendations, and to maintain as much stability in the recommendations as is consistent with the new scientific information. While the recommendations were finalised in March, the final publication is not likely to be available for several months. Council was also advised of other recently published ICRP reports, and those in preparation. Council members were informed that the adoption of the new ICRP recommendations in Australia involved revision of Radiation Protection Series 1 (RPS1) and this would take some time, however some elements, such as the new weighting factors, could be adopted quickly via a statement of the RHC.

### **Update on Development of IAEA Safety Standards**

Council was advised that the two key issues discussed at the recent meeting of the IAEA Radiation Safety Standards Committee (RASSC) were the review of the Basic Safety Standards (BSS) and the overall structure of the safety standards. A Technical Meeting in July will develop the draft further. A proposal for a revised structure of the safety standards would be open for comment by members until 1 August, and would be discussed again by the committees in October before proceeding to the Commission on Safety Standards (CSS) for approval.

## **Reports on NORM Conferences**

Dr Rick O'Brien, Environmental & Radiation Health Branch, ARPANSA, presented information from the Natural Radiation and NORM Conference held in London on 5-6 March 2007. The outcomes of the conference included the need to involve stakeholders, the importance of communication, that any regulatory approach is best based on optimisation rather than limitation, and harmonisation within and between countries is critical – particularly for trade. Mr Melbourne presented information on the NORM V Conference in Seville, Spain on 19-22 March 2007. The key outcomes included a need for better systems to make information widely available, need to move from discussion to implementation, models needed to be used with care and real measurements used where possible, there were still transport and border monitoring issues, little had been presented on how to control doses, there was a need to investigate options for use, re-use, and recycling, and a residue management strategy was required. Both conferences indicated that the approach being taken in Australia is consistent with those elsewhere in the world.

## **PUBLIC HEALTH ISSUES ARISING FROM POLONIUM 210 INCIDENT IN UK**

Mr Melbourne presented information from a conference on Polonium 210: The Public Health Response, held in London on 27 March 2007. The conference dealt with an incident wherein polonium 210 was used as a poison, and provided an insight into the response carried out by the UK government and in particular the Health Protection Agency. The response included the need to identify and monitor persons at risk, monitor contaminated areas, and prevent any further risk to the public. The challenges of the response included working with the police investigation, sustaining the response over a long period, cross-government coordination, understanding the hazard quickly, monitoring the environment, communicating with the public, health and safety of staff, logging and quality assurance of results, waste disposal, dealing with unexpected events, and dealing with costs. Council discussed the capacity and mechanisms to respond effectively should such an incident occur in Australia.

## **BRIEFING ON THE INTEGRATED REGULATORY REVIEW SERVICE MISSION TO ARPANSA**

The CEO described the process for the IAEA Integrated Regulatory Review Service mission that was to examine ARPANSA's regulatory systems in the last week of June and first week of July 2007. At present the self-assessment stage is still being completed. The report expected from the review will identify recommendations that we would be expected to put into effect, suggestions for improvements, and good practices that we undertake that would be of benefit to other countries.

## **REPORT FROM THE CEO**

The CEO advised Council that:

- The UMPNER Report was published on 29 December 2006.
- The HIFAR reactor was shut down on 31 January 2007. Some closure activities will take place under the operating licence. A licence to 'have possession or control' of HIFAR is required to allow ANSTO to prepare for decommissioning.
- Regulatory guidance relevant to the proposed Commonwealth Radioactive Waste Management Facility had been completed after comment had been reviewed.
- Hot commissioning of OPAL was continuing. There had been leakage of cooling water into the heavy water reflector vessel. This was not a safety issue, however the repair is a safety issue. INVAP have six teams working on a solution and ANSTO will present a proposal for the repair.

- The OPAL Reactor had been opened by the Prime Minister on 20 April 2007.
- Higher levels of fission products than expected had been detected in the pool water. A leak had been found in a fuel assembly and this had been replaced.
- The cold neutron source was now working.
- A new process for molybdenum production was being introduced and was undergoing commissioning.
- The CEO also went to Vietnam on invitation of the regulator. Vietnam is looking to get training placements for new staff throughout the region. ARPANSA will sign an MOU to give some support.

## **COMMITTEE REPORTS**

### **Reports from the Committees**

Council noted reports of the Radiation Health Committee (RHC) meeting of 14-15 March 2007, and the Nuclear Safety Committee (NSC) meeting of 22 February 2007, and in particular that the full decision of RHC on the medical radiation code was on the ARPANSA web site.

Council noted that:

- RHC was considering review of a number of publications;
- the NORM stakeholders group had been established;
- a working group was established to develop a NORM Safety Guide;
- RHC had made a decision to have one medical Code, supported by three Safety Guides on diagnostic and interventional radiology, radiotherapy, and nuclear medicine;
- the key issues that had arisen in public submissions on the draft ELF Standard included the figures chosen for the limits, the cost-benefit analysis and the effect of the draft on the operation of MRI equipment;
- the NDRP 2 draft was expected to be released for public comment before the next RHC meeting; and
- the IAEA Research Reactor Conference will be held in Sydney in November 2007.

### **OTHER BUSINESS**

Council discussed a paper by Prof Fred Mettler at the Annual Meeting of the US National Council on Radiation Protection, which indicated that medical radiation exposure in the USA had increased by a factor of 6 since 1980. Council was also informed of new whole body CT protocols for trauma cases involving significant injuries, where the CT dose was of the order of 20-30 mSv. Council also noted that the Secretariat had been approached by a radiologist concerned about aspects of SPECT/CT. Council agreed that medical radiation will be kept on the forward plan and new issues placed on the agenda as appropriate.

Council was informed of recent media reports concerning an incident at Department of Defence, in which staff were exposed to tritium. ARPANSA had investigated the incident, which occurred four years ago.

### **CLOSURE AND NEXT MEETING**

The next meeting was scheduled for 3 August 2007.