



**SUMMARY OF MEETING OF 25 & 26 NOVEMBER 2004**

**25 NOVEMBER 2004 – Council Visit To ANSTO, Lucas Heights, NSW**

**Briefing and Tour of ANSTO facilities**

Dr Ian Smith (Executive Director) and Dr Ron Cameron (Chief of Operations) provided Council with a presentation and discussion on ANSTO activities. Council visited the Replacement Research Reactor construction site and the low level waste storage, handling and conditioning facilities.

**26 NOVEMBER 2004 – Council meeting**

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

Council met at ARPANSA's Miranda offices on 26 November 2004. All members were present except for Dr G Rouch. Mr Peter Burns, Director, Environmental & Radiation Health Branch, ARPANSA, attended the meeting as an observer and Mr Peter Colgan, Manager, Policy & Source Security Unit, ARPANSA, attended for agenda item 6. The minutes were confirmed without amendment.

**BUSINESS ARISING FROM THE MINUTES**

Council received an update on action following the incidents at ERA Ranger Uranium Mine that were reported last meeting. The Australian Government Minister for Resources had imposed conditions on ERA. As a result, a safety audit of clearance procedures and other radiation protection arrangements was being undertaken by ARPANSA, and an audit of engineering issues by ANSTO. The NT regulator is prosecuting in relation to the water incident and further action on the vehicle issues may follow. Fourteen workers are to participate in a long-term medical follow-up program.

A letter from A/Prof Nick Pocock, Chairman, Densitometry Committee, ANZ Bone Mineral Society regarding the necessity for ethics committee approvals for performing duplicate DXA scans was discussed. Council noted that the extra scans related to precision estimation, but that the issue was one for State regulators rather than Council.

**RADIATION PROTECTION FUNDAMENTALS**

**Issues arising from ICRP 2005 draft recommendations**

The main areas of change proposed in the draft ICRP 2005 Recommendations that had been released for comment until 31 December 2004 were summarised for Council, along with the issues arising in comment on ICRP 2005 being prepared by the IAEA, and the Radiation Health Committee. ICRP's changes included justification now being an issue for governments, with radiation protection being only one input, the concept of dose constraints had a different role than previously, weighting factors had been updated, the notion of optimization now included stakeholder input, collective dose is replaced by a disaggregated matrix, and a policy on the protection of non-human species was included. Council noted that 5 foundation documents supporting the recommendations were to be published by about

March 2005, and that it was now expected that the new recommendations would not be finalised until 2006, after a second round of comment.

Council commented that justification remained a fundamental radiation protection principle, even if responsibility for judging justification had changed. Council also commented that the proposed policy on the environment appeared to be headed in the right direction, noting that there was much further work intended in this area. Council requested to be informed should the RHC comments change significantly before being finalised.

### **CERRIE Report**

Mr Burns informed Council of the report of the UK Committee Examining Radiation Risks of Internal Emitters (CERRIE). The committee included a wide spectrum of people including some who believe the risk from internal emitters is significantly underestimated. While it is acknowledged that there are substantial uncertainties in the detailed estimation of internal doses, some are claiming errors of 10-100 in the risk factors, which is not supported by the epidemiological evidence. Council noted the striking amount of disagreement between committee members reflected in the report, and that it was intended that the report would be referred to the COMARE committee in the UK for advice to Ministers.

### **SECURITY OF SOURCES – PROGRESS WITH CODE OF CONDUCT**

Mr Colgan provided Council with an overview of progress on security of sources and implementing the Code of Conduct in Australia. A National Security of Sources Strategy had been accepted and high hazard sources identified and their security reviewed. A code of practice to be implemented through the National Directory for Radiation Protection was being prepared, a National Register of Sources was being developed, and export controls would be introduced by 31 December 2005 in addition to existing import control. Further steps planned include a national system for notification of sources that have become uncontrolled, supported by emergency response capacity and education targeted at users of radiation sources will be developed. Detection of illegal entry will be reviewed. In a separate program operated by ANSTO, countries in our region will be assisted with recovery of “orphan” sources. Council requested to be kept informed of progress.

### **SUMMARY OF SUBMISSIONS ON NORM DISCUSSION PAPER**

Council was informed that 7 submissions had been received so far, with the issues raised covering the possibility of site-specific exemptions based on background levels, terminology, disposal proposals, the need for education and R&D programs, and concerns from some industries that there is already sufficient environmental legislation either directly or indirectly dealing with NORM. Some submissions supported the need for a national approach to NORM issues, and particularly the development of national guidance on dealing with NORM waste and contaminated sites. Further submissions were expected before the close of the comment period, and there would be further discussion on the paper and submissions at the Mining Conference in April 2005. The Secretariat would circulate a table of the submissions and draft responses after the comment period closed at the end of November.

### **REPLACEMENT RESEARCH REACTOR UPDATE**

Council agreed that the visit to the ANSTO Replacement Reactor site and waste handling/conditioning facilities had been worthwhile. It was agreed that a letter of thanks would be sent to ANSTO. Dr Loy advised Council that ARPANSA was completing its role

in regard to the construction licence, and moving to consider commissioning and the application for an operating licence.

Commissioning will be undertaken in several phases planned by ANSTO to start in July next year. The public version of the operating licence is being prepared and will be released in early December. The Nuclear Safety Committee has been requested to look at the appropriateness of the operating organisation.

### **2005 PROGRAM OF WORK FOR RHSAC**

The CEO tabled a draft letter requesting that Council examine emerging issues in radiation protection, looking forward about 10 years in the medical radiation field in particular. Council noted that technology, particularly CT, was advancing rapidly, and considered that it would be valuable to have a leading radiologist, nuclear medicine specialist and medical physicist give presentations to Council on their views of potential issues. Council was also advised that as the technology gets easier to use, specialists other than radiologists are operating equipment, and training issues arise. The Secretariat will prepare a list of bullet points taken from the discussion and find appropriate speakers for the April 2005 meeting.

### **ADOPTION OF RECOMMENDATIONS FOR INTERVENTION IN EMERGENCY SITUATIONS INVOLVING RADIATION EXPOSURE**

Council was informed of the process undertaken to develop the Recommendation for Intervention in Emergency Situations Involving Radiation Exposure. The Recommendations had undergone a significant consultation process with two rounds of public comment, and the production of an ARPANSA Technical Report on radioiodine exposure risks and stable iodine prophylaxis to inform comment on this topic. Council was provided with a copy of the final draft and the second round submissions and responses. The Radiation Health Committee had now approved the draft. No regulatory impact statement had been required on this publication. Council agreed to advise the CEO to adopt and publish the Recommendations.

### **REPORT FROM THE CEO**

The CEO advised Council that NSW had now accepted the cost-benefit analysis on the National Directory as being sufficient to meet their requirements. An IAEA regional meeting on safeguards and nuclear security had been held in Sydney, and was attended by the Director-General of IAEA. Measures to prevent sabotage of nuclear facilities and the safety and security of sources were discussed. The CEO had attended the IAEA Commission on Safety Standards, where the Safety Requirements for Research Reactors had been approved again, following debate about the extent to which safety standards, particularly at the mandatory level of requirements, could deal with physical security. An important Safety Requirement on geological disposal of radioactive waste was also discussed. A “road map” to establish the steps needed to manage radioactive waste in the States, Territories and the Australian Government is to be developed. An inventory of waste will be established, and the steps for a consistent approach to waste management will be established to enable positive steps to be taken. The “road map” follows on from the Indicator for Sustainable Development for Radioactive Waste Management that Council has discussed previously. An RHC working group will meet for discussion and will then act as a steering committee for ARPANSA to develop the “road map”.

### **COMMITTEE REPORTS**

Draft reports on the RHC November 2004 and NSC October 2004 meetings were tabled.

## **RHC Response to Council recommendation on Waste definition & Classification**

A copy of the draft RHC paper on classification of radioactive waste was tabled for Council information and comment. The draft was nearing completion by RHC. It had been developed at the request of the CEO following Council's recommendations on radioactive waste. Council members commented that the framework looked reasonable.

## **RHC Cosmic Radiation Statement**

A draft RHC statement on cosmic radiation and an accompanying public information statement were tabled. These had been developed following a working group discussion paper to RHC. The statements discussed the occupational exposure issue in particular, including cosmic radiation exposure during pregnancy. Council noted the statements and made some editorial suggestions.

## **OTHER BUSINESS**

### **Interventional Cardiology Questionnaire**

Council was advised that the Cardiac Society had now agreed to the questionnaire and arrangements for the pilot trial at a limited number of centres had commenced.

### **Tasers**

Council was provided with information on Tasers for discussion, and consideration of whether they were relevant to the ELF Standard being developed by RHC. Council decided to note the information, agreeing that it was not considered to be within Council's terms of reference to make recommendations on these devices.

### **Issues arising in the further development of the National Directory for Radiation Protection**

Council was informed of the issues being considered in the development of edition 2 of the National Directory for Radiation Protection. As mining and mineral processing had not been included in edition 1, a number of issues required further consultation with the industry. These included completion of the Mining Code, development of a protocol for consideration of exemptions, Council's NORM discussion paper, and defining a reportable incident in mining. These would be discussed further with industry at an ARPANSA sponsored conference in April 2005. The second issue was the approach taken to preparation of regulatory impact statements for the Directory and for the Codes as they are developed.

### **Protection of the Environment**

Dr Arthur Johnston gave a presentation to Council on Protection of the Environment. The presentation gave background on the reasons for a change of approach to that in earlier ICRP guidance. The FASSET study 2000-2003 in the EU was also discussed. The new ICRP approach was to identify reference organisms, then to relate exposure to dose and dose to effects. ICRP intends that Derived Consideration Levels would be developed.

## **CLOSURE AND NEXT MEETING**

The next meeting was scheduled for 13 April 2005 in Melbourne.