

Radiation Health & Safety Advisory Council

an advisory body to the CEO of ARPANSA, established under the ARPANS Act 1998
Secretariat: ARPANSA, Standards Development & Committee Support Section,
Lower Plenty Road, Yallambie, Victoria, 3085
Tel: 03 9433 2211 Fax: 03 9433 2353
Email: arpansa.secretariat@health.gov.au

DRAFT MINUTES OF MEETING OF 30 November 2001

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1 OPENING OF MEETING AND ATTENDANCE

Council met at ARPANSA's Yallambie office on 30 November 2001. The following were present:

Members: Dr Rick McLean (Chair)
Dr Nick de Klerk
Dr Arthur Johnston
Dr John Loy
Mr Peter Raue
Dr Richard Smart
Dr Garry Smith
Dr Graeme Dickie
Ms Lorraine Plues
Ms Sylvia Kidziak (participated by phone for agenda items 8-13)

Secretariat: Mr Alan Melbourne
Ms Heather Letwin

Observers: Mr Simon Critchley
Dr Andrew Wood (attended for item 7 only)

Dr McLean opened the meeting at 9:45am and welcomed all members. In particular, he welcomed Mr Critchley, chair of RHC, who was attending for the first time.

2 APOLOGIES

Dr Lorraine Robb.

3 CONFIRMATION OF MINUTES OF THE 3 AUGUST 2001 MEETING

The minutes were confirmed without alteration.

4 BUSINESS ARISING FROM THE MINUTES

Dr Smart requested advice on implementation of new transport regulations for air and sea transport. Mr Melbourne advised that for air transport the new IAEA regulations had been implemented on 1 July 2001 by adoption of the International Air Transport Association (IATA) regulations which in turn adopt IAEA requirements. For sea transport the mechanism was adoption under Marine Orders of the International Maritime Dangerous Goods Code (IMDG Code), which in turn adopts IAEA requirements. Confirmation was being sought as to when this would come into effect.

In relation to adoption of the Transport Code in Australia, Mr Critchley advised that Queensland were preparing regulations and Ms Plues advised that NSW would adopt the Code by gazettal on 1 December 2001. Council requested an update on implementation of the Transport by all jurisdictions for its next meeting.

Dr Loy advised that the ELF Survey proposal was being revised. Sampling had been discussed with the Australian Bureau of Statistics. In addition to surveys of homes it will include information on exposure in schools. The survey proposal has now clarified what is to be measured. The sampling for most of the survey will be random, and the current issues are avoiding bias, and a sub-survey of houses near powerlines. A peer review of the proposal will then be undertaken before seeking funding to conduct the survey. ARPANSA would circulate the current version to Council members, and Council requested a progress report for next meeting.

Council noted that the intended post-meeting briefing after last meeting had not proceeded as no-one had attended. It was agreed to continue to have post-meeting briefings despite the lack of interest after last meeting.

5 COUNCIL RADIOACTIVE WASTE WORKING GROUP

The Chair noted that comment on the draft report had been received from Mrs Fitch. This would be circulated to the working group. Council discussed the report in detail, and a range of editorial issues and clarifications were raised. These were noted by the Secretariat for provision to the working group. The following key points and tasks were noted:

- Sections on ANSTO gaseous waste and spent fuel had not been included in the draft;
- The smoke detectors section needed to be updated following the RHC Statement;
- Ms Plues will provide some revised paragraphs on NSW waste holdings;
- Ms Plues is also to check the section on ANSTO wastes from external sources;
- Dr Smith to check the U-mining section in relation to "75% of the original";
- Dr Smith to check the date in the Port Pirie section on p.16;
- No information on NT and Qld mines had been included. Dr Smith to update;
- Mr Raue to obtain information on local Council policies on radioactive waste;
- Dr Johnston to check accuracy of last sentence in Basel Convention (p.22);
- Ms Plues to advise on removing "decision-making" from draft;
- More up to date information to be obtained through RHC members on legislation on transport and storage of radioactive waste;
- All authors to consider the need for recommendations in their sections; and
- Mr Melbourne to circulate details to working group members of the tasks and editorial changes required.

The next draft is to be ready for circulation to Council by the end of February at the latest.

6 PRECAUTIONARY PRINCIPLE WORKING GROUP

A short draft paper on precautionary approaches in radiation protection was tabled for consideration as Council advice to the CEO. The paper was based on the earlier 12 page information paper. Council provided some editorial suggestions and agreed that a further version of this paper should be prepared. In regard to the longer paper, Council felt that it should be circulated to other agencies, such as TGA, ANZFA, and the Office of Gene Technology to advise them of Council's interest and seek their comment. The paper could then be published in an appropriate journal.

7 RADIOFREQUENCY STANDARD – APPROVAL OF FINAL STANDARD

Dr Andrew Wood, member of RHC and member of the RF Standard working group, attended for this item. The CEO discussed the report tabled to brief Council on the process undertaken to develop the draft RF Standard, including the former Standards Australia process, the establishment of the working group and its meetings, public consultation, the differences with the former standard and with ICNIRP Guidelines, the key issues arising in working group discussions, the RHC process, the letters from working group members to RHC, and the regulatory impact statement (RIS) process. Dr Wood added that NZ did pass a Standard in 1999, when Standards Australia did not. All of the Standards are based on 4 W/kg, above which there may be concern. The differences arise in how to estimate local heating, even with a plane wave, and that there is now a clearer understanding of how Specific Absorption Rate (SAR) distribution in the body takes place. It was noted that even with 0.4 W/kg there can still be a factor of 25 higher in some parts of the body.

Dr Wood noted that the reference levels at some frequencies are now stricter than they were before, in some cases up to 10 times stricter. Dr Wood explained that reference levels were simpler to measure and confirm compliance, whereas the basic restrictions were the actual limits, but were expressed in quantities that were often difficult to measure directly.

Council suggested that as the Standard was a technical document, there was a need for a plain language guide describing the changes and their rationale to accompany the Standard. It was also noted that the RIS process had not been finalised and that Council would want to be satisfied that comment had been adequately addressed.

Council requested that the completed RIS report and the plain language guide be tabled at the next meeting.

8 SECURITY AND PHYSICAL PROTECTION OF NUCLEAR FACILITIES AND RADIOACTIVE MATERIALS

The CEO advised that, prior to September 11, international security focus had been on nuclear materials as related to weapons making, and the international convention relates to movements of nuclear materials. The Australian Safeguards and Non-proliferation Office (ASNO) regulates ANSTO in relation to physical protection issues. A memorandum of understanding between ASNO and ARPANSA is being prepared. Post September 11, ANSTO is to undertake a review of security issues and consequences, including large commercial aircraft. This will be reviewed by ARPANSA and made available to security agencies and ASNO.

9 PROGRESS REPORT ON CONSTRUCTION LICENCE APPLICATION FOR REPLACEMENT RESEARCH REACTOR

A paper on the issues for the second round of public submissions was tabled. Dr Loy summarised the process as follows:

On receipt of the application, a summary of the Preliminary Safety Assessment Report (PSAR) had been placed on the ARPANSA web site and made available on CD. There had been a round of public submissions. Issues such as accident analysis, seismic design, and spent fuel were being considered. A public forum would be held on 14 and 17 December 2001. A panel is being formed to assist the CEO in running the forum. The second round of public submissions closes on 21 December 2001. NSC is to report by the end of January. The Safety Evaluation Report is to be prepared by ARPANSA's Regulatory Branch during January. During February, the CEO would draw together the available information and consider whether he can make a decision on the licence.

10 INTERVENTIONAL CARDIOLOGY

Council noted that the letter prepared for joint signature by the Cardiac Society and Council had been approved by the Cardiac Society executive and copies were in transit to the Chair for signature. A questionnaire will then be developed and piloted in a number of centres before being distributed to all cardiology centres. Mr Critchley advised that RHC is developing a code of practice on radiology that will include interventional radiology and cardiology.

11 REPORT FROM THE CEO

The CEO reported on the strontium-90 testing program. ARPANSA had inherited records from a testing program undertaken from 1957-78, wherein tissue samples were collected from all mainland capitals to test for strontium-90 from fallout. These records had now been put onto a database, and a report prepared for the Minister. The Minister had referred the matter to the Australian Health Ethics Committee, and their advice was expected in about one month. Council noted that the testing program had demonstrated some uptake of strontium-90 from fallout and that this was used as part of the argument to stop atmospheric weapons testing.

12 COMMITTEE REPORTS

12.1 Report from the Radiation Health Committee

Mr Critchley advised that the RHC had met on 31 October and 1 November 2001. Issues had included the RF Standard, Intervention Levels after an accident including iodine prophylaxis, the draft Veterinary Code, the draft X-ray Analysis Code, pre-disposal radioactive waste management, research using human volunteers, discharge of patients who have been treated with radiopharmaceuticals, disposal of radioactive waste by the user, cosmic radiation, the draft Occupational UV Standard where the regulatory impact statement was now being considered by the Office of Regulatory Review, and a new working group to consider an ELF Standard. Mr Melbourne described the Document Development Plan process which guides the working groups in regard to the type document that RHC requires.

Council noted the RHC's progress, and requested that members' comments on the User Disposal Code be passed on to the RHC working group.

12.1.1 RHC Statement on Disposal of Smoke Detectors

Mr Critchley tabled a Statement prepared by RHC on the disposal of domestic smoke detectors. The Statement concluded that it was safe for small quantities of detectors to be disposed of with normal household garbage. Standards Australia would be asked to amend its Standard accordingly, and regulators would be asked to adopt the Statement in their waste management policies.

After discussion, Council endorsed the Statement.

12.1.2 Re-badging of RHS 39

Mr Melbourne explained that RHS 39 was a joint publication of NOHSC and NHMRC which set dose limits for public and occupational exposure to radiation. Since NHMRC had handed responsibility for the Radiation Health Series publications to ARPANSA, ARPANSA had approached NOHSC about re-badging RHS 39 as an ARPANSA/NOHSC publication. NOHSC had now agreed to the re-badging. This process would involve updating copyright statements, lists of authorities, a revised foreword, and a note under the dose limits tables stating that the use of the exceptional circumstances provisions was no longer recommended for application in Australia.

Council endorsed the re-badging of RHS 39.

12.2 Report from the Nuclear Safety Committee

Ms Kidziak reported that the NSC had met on 8-9 November and was due to meet again on 6 December. NSC had formed 3 working groups to report on key issues related to the Research Reactor construction licence application and their work was progressing. The 3 groups were:

Seismic Design: The issue for this working group was what criteria should be used, and there was still outstanding work to be completed by the working group. A paleoseismologist was to be employed by ANSTO to report on some aspects, and a seismic engineer would be employed by ARPANSA to review this work. A preliminary working group report had been prepared.

Accident Analysis: This group was to consider the overall spectrum of accidents and whether they are adequately addressed in the Preliminary Safety Assessment Report, in relation to the ARPANSA's regulatory assessment criteria and principles. Human factors, sabotage and the probabilistic safety analysis were issues under consideration.

Spent Fuel and Radioactive Waste Management: This group was to consider whether the overall strategy was adequate, and that fuel issues were satisfactorily addressed. The group would consider reprocessing, storage on site and off site, qualification of fuel type, transport issues and social questions.

Answers from ANSTO on questions raised by the working groups were now on the way. The NSC report on the above issues was to be completed by the end of January 2002.

NSC had noted that a public forum was now to be held during December.

13 OTHER BUSINESS

13.1 Letter from Vic Roads

Vic Roads had written to Council in relation to correspondence from residents raising the possibility that ionization of particles near powerlines close to ventilation stacks could have an effect on their health. This query was based on a research study conducted in the UK. Council considered a draft reply developed after advice from ARPANSA's Non-ionizing Radiation Branch, which indicated that it had not been demonstrated that any such enhanced deposition will increase human exposure in a way that will result in adverse health effects to the general public.

Council members were requested to provide comment on the draft reply within one week, and it would then be sent to Vic Roads.

14 CLOSURE AND NEXT MEETING

The next meeting was scheduled for 12 April 2002 in Miranda. The meeting was closed at 4 pm.