

RADIATION HEALTH & SAFETY ADVISORY COUNCIL

Minutes of Meeting held on 1 December 2000

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1. OPENING OF MEETING AND ATTENDANCE

Council met at ARPANSA's Yallambie office on 1 December 2000. The following were present:

Members	Dr Rick McLean (Chair) Dr John Loy Mrs Jill Fitch Dr Nick de Klerk Dr Graeme Dickie (attended for items 1-7, 9) Ms Lorraine Plues Dr Lorraine Robb (attended for items 1-9) Dr Richard Smart Mr Peter Raue Ms Sylvia Kidziak (by teleconference) Dr Garry Smith (by teleconference for items 7, 8, 10-14)
Secretariat	Mr Alan Melbourne Dr Silvano Colmanet
Observer	Mr Wayne Cornelius (attended item 9 by invitation)

The Chair opened the meeting at 9:45 am and welcomed all members.

2. APOLOGIES

Dr Arthur Johnston. The Chair advised that Dr Johnston's appointment to Council was now confirmed.

3. CONFIRMATION OF THE MINUTES OF THE MEETING OF 24 JULY 2000

The following corrections were made to the 30 November 2000 draft minutes:

- Following discussion on comments made by Dr Smith on the role of the Council, in section 7.2 replace the third last sentence with "*The Chair noted that Council is a high-level advisory body and its role, as set out in the legislation, relates to providing advice on matters pertaining to radiation health and nuclear safety. Therefore it is appropriate that Council considers policy areas and provides advice relevant to radiation health and nuclear safety to inform public debate and subsequent policy decision making.*"
- In section 7.4 delete Ms Plues from Precautionary Principle Working Group.

The minutes were then confirmed (proposed Dr Smart, seconded Mrs Fitch).

4. BUSINESS ARISING FROM THE MINUTES

Dr Smart provided an update in relation to the Repatriation Medical Authority working group discussed in the CEO's report at the last meeting. The Repatriation Medical Authority has amended some of the 'causality' statements of principles relating to ionizing radiation along the lines recommended. The working group's report had been given to peak bodies and to groups who made submissions. Feedback on the proposals had mainly been favourable.

The paper to be written by the CEO and Dr Johnston on the non-human environment had been held over due to rapid development in the international arena. It will be progressed using the latest thinking arising from international meetings.

A possible briefing from Dr Malcolm Cooper on radioactive waste matters will be considered when the Working Group on Radioactive Waste has made more progress.

Further information on web accesses to the Council's page indicated 30-40 accesses per month.

The NOHSC observer appointed to the RF Exposure Standard Working Group was Ms Judy Lawson.

The memorandum of understanding (MOU) with Standards Australia was progressing and a draft may be available in about 1 month.

There had been little progress regarding a MOU with NOHSC and the Council noted that a new Commission was to be appointed. A progress report on a MOU would be placed on the next Council agenda. Ms Kidziak was asked to liaise with the CEO when the new Commission has been appointed, given her current and potential involvement in this area.

Council noted that the SA Act that prohibits nuclear waste storage facilities had now been passed. This Act prohibits the storage of other than low level radioactive waste originating from outside SA.

5. WORKING GROUP ON RADIOACTIVE WASTE

Dr McLean reported on a meeting of the Working Group on Radioactive Waste, held on 30 November 2000 at Miranda. Dr McLean, Ms Plues, Mr Raue, Dr Smith and Dr Loy had attended. Mr Alex Zapantis, a colleague of Dr Johnston, had briefly joined the meeting by phone to provide information on work progressed by Dr Johnston. The initial request from the CEO had been two-fold; to provide initial general advice and to provide subsequent detailed advice on final disposal of intermediate level waste. The Working Group dealing with the initial general request had divided its work into 10 tasks. Each Working Group member would deal with two, and would produce 10-15 pages on their tasks. Mr Melbourne would provide resource information requested by working group members.

The Working Group had discussed the need to define more precisely its terms of reference and have those approved by Council. A draft including background, terms of reference, and scope of work was tabled. The terms of reference were agreed as:

To provide advice to Council so that Council may advise the CEO on both current and potential matters relating to radiation protection and nuclear safety in Australia in relation to transport, storage, and disposal of radioactive waste, taking into consideration current national policies.

Some members commented on the broad scope of work proposed. However the Chair indicated that it was intended that the group would consider the issues at an overview level, sourcing documents, highlighting deficiencies, exploring options and identifying the need for further work. While international best practice would be taken into account, the document will be

explicitly for Australia. A revised version of the paper will be circulated after the meeting and members were encouraged to make further comment about any other areas that need to be covered. The Chair stated that the Working Group document was intended to be written at the level of an intelligent lay reader. A possible need for editorial help was discussed, given that some Council members feel more comfortable writing for a scientific audience rather than for the general public.

Council discussed issues about the operation of working groups in general. These included resourcing, the need for a more formal structure for working group tasks and timelines, and the suggestion that minutes on the web include working group timelines wherever possible. The CEO noted that the style of working groups under the Council and committees was different. RHC had an established system where external resources are used extensively. NSC working groups were largely committee members, but with some outsiders. Council working groups were very much made up of Councillors with information and support directed through ARPANSA.

The Working Group on Radioactive Waste plans to prepare drafts on its tasks and circulate to working group members by March 2001, with the intention of having a complete draft document for consideration at the next Council meeting.

6. WORKING GROUP ON PRECAUTIONARY PRINCIPLE

Dr Dickie reported on a meeting of the Working Group on Precautionary Principle. A short paper outlining the discussion was tabled. The Working Group had discussed its terms of reference and felt that its main purpose was to advise Council on the precautionary approach/principle. It noted that most uses of the precautionary principle were outside radiation protection. In particular, the Working Group was aware of various definitions and terminology used in relation to precautionary approaches.

Council noted that occupational health and safety legislation now required that risk assessment approaches be employed. However it was also noted that precautionary approaches were generally used in areas where lack of data or other uncertainties mean that a risk assessment cannot be performed.

The Working Group intended to produce a paper covering general aspects of the use of precautionary principle, as well as its use in radiation protection, including non-ionizing radiation.

The Working Group also debated the intended purpose of the paper they would ultimately produce. It was felt that it would mainly be for in-house purposes of informing Council of precautionary approaches and their application in radiation protection. Council agreed that it should consider the paper developed by the Working Group and then decide whether it should have wider circulation, either in its initial or in a revised format.

The Working Group will develop a document for consideration at the next Council meeting.

7. INTERVENTIONAL CARDIOLOGY

The Chair noted that following on from discussion at the IRPA-10 Congress, it was obvious that radiation exposure during interventional cardiology is an issue. A letter had been written to the

Cardiac Society of Australia and New Zealand, and the letter and reply were tabled. The Secretary advised that he had contacted the Society's nominee, who had said that he was unable to participate in these discussions and had requested that the President of the Society nominate another representative. This had not occurred as yet.

An internet article from *USA Today* was also tabled. It described cases of radiation injury from angioplasty and a law suit that had resulted from one such case.

Dr Dickie advised that he had been approached by an orthopaedic group, requesting advice about cancers and their possible relationship to radiation exposure. Council noted that RHC has formed a Scoping Group on Medical Radiation Issues, and suggested that this group should consider the matter. A particular consideration was that groups of medical specialists, other than radiologists, did not always have access to information about radiation protection.

Interventional Cardiology issues will be discussed again, following contact with the Cardiac Society's representative.

8. ARPANSA CONSIDERATION OF CONSTRUCTION LICENCE FOR REPLACEMENT REACTOR

The CEO tabled a paper that outlined, for planning purposes, a timetable, public involvement process and role of the NSC in relation to ARPANSA's consideration of the construction licence for the Replacement Research Reactor. The paper asked Council to note the proposals and consider the appropriate role for the Council.

It is assumed that an application for licence to construct will be received in about May 2001. The Act requires a public submission process for this application. A Preliminary Safety Analysis Report (PSAR) will be a part of the application and this will form the basis of ARPANSA's assessment. An independent peer review of the PSAR will also be undertaken and made public. A number of key issues have been identified (seismicity design basis, proposed fuels and disposition of spent fuels, reference accident assumptions) and NSC will play a role in advice on these. It is also proposed that ARPANSA will formally put questions to ANSTO and INVAP in two rounds, and to put both questions and answers on the public record. There would then be a further round of public submissions prior to final licensing decisions.

Council members felt that NSC should consider the issues and the Council's role would be to advise NSC when requested. NSC would keep Council informed of its discussions and those of its working groups by circulation of a series of dot points out of session.

Accessibility for the public to make submissions was also discussed. The CEO noted that a public meeting process had started in November, and this approach will be used again throughout the application assessment period. The CEO confirmed that the proposed timetable would be made available to the public.

The Replacement Reactor process was a substantial issue for the next NSC meeting, and a report to Council would follow.

9. PROGRESS WITH RADIOFREQUENCY STANDARD

The CEO presented a review of progress towards a RF Standard that had been prepared by Dr

Colin Roy, who is chairing the Working Group. Mr Wayne Cornelius from ARPANSA's NIR Branch, EMR and Optical Section attended for this item.

The CEO noted that the Standard publication would contain more than just the exposure limits. It would contain an analysis of the literature and a detailed rationale, which was important for public discussion. The previous Standards Australia-coordinated process had failed to reach consensus, and a number of aspects of the RF area were still controversial. In particular, the issue of whether there are health effects from low levels of RF (too low to cause effects by heating) would need to be examined in the Standard publication.

It was important to set the context of the Standard in the foreword to the publication. The Standard would set occupational and public exposure limits. The limits would be established in Basic Restrictions, largely in terms of specific absorption rate (SAR), which can be hard or inconvenient to measure. In addition, a series of reference levels would be set for quantities that can be measured. The relationship of the reference levels to the basic restrictions at different frequencies can be quite complex. This will need to be carefully explained to avoid misunderstandings.

The Standard also deals with verification of compliance, and protection issues.

The Standard will include Annexes and Schedules. The Schedules include a detailed rationale, which is currently being reformatted to link the rationale better to the various basic restrictions and reference levels, and "look-up" tables. The Annexes will include discussion of quantities and units, epidemiological studies, non-thermal effects, measurement, precautionary approaches, and medical monitoring.

The draft is well advanced. The working group will meet again on 19-20 December 2000 and hopes to finalise the draft and present it to RHC following that meeting. The public comment period could be late January or February 2001, and the Working Group will then review public comment prior to final submission to the RHC.

While the draft is based on ICNIRP recommendations, the Working Group has meticulously examined the technical issues, and the Standard will be more up to date and comprehensive than the ICNIRP document. Council noted that the Australian Communications Industry Forum (ACIF) was developing a Code of Practice that would complement the Standard in the communications area. Further codes relating to other areas of the electromagnetic spectrum could also be developed.

Council was also advised that a replacement Union representative had been appointed to the Working Group. RHC had also decided not to replace another Working Group member who had resigned some time earlier. Other Working Group members had adequately covered the area of his expertise.

10. COUNCIL AND THE PUBLIC

10.1 Open meetings (Letter from Councillor Rankin 31/10/00)

The Chair introduced the letter from Councillor Genevieve Rankin of Sutherland Shire Council, and his reply of 20 November 2000.

Councillor Rankin had written commenting on various aspects of the public process involved

with the replacement reactor and HIFAR. In particular, she had requested that Council meetings be open to the public. The majority of Council members present did not favour allowing members of the public to attend meetings as it could inhibit open and frank discussion. Various options for improving public access to Council deliberations were discussed. These included holding a media/public conference immediately following each Council meeting, where the Chair and CEO and Council representative of the general public could discuss the outcomes of the meeting. Some members felt that such a meeting should be held later, when there had been time for consideration of the issues arising from a meeting. Other options discussed were to invite representatives for particular topics, or to hold separate public meetings at times it chooses; for example Council may choose to meet with people who have made submissions. Members noted that Council is an advisory body, and that the view in some public groups that the Council has a power of veto over ARPANSA and CEO decisions was wrong.

Council strongly supported the concept of having its decisions widely known such as by placing meeting summaries on the Web.

A summary prepared by the Secretariat of the processes used by other like bodies for involving the public was tabled and discussed.

The Chair summarised the discussion by stating that most members preferred to consider options other than fully open meetings. As there were three Council members absent from this discussion, there would be no final decision until their feedback could be obtained. The Chair will draft and circulate a response advising that there had been considerable discussion, that Council will look at creative options to improve public involvement, and that as some members had been absent a final decision would be made at the next meeting. The draft response will be circulated before Christmas, and the issue will be on the next agenda.

10.2 Protocol for public consultation

A draft of the Protocol for Public consultation was tabled. This document had now been considered by the Council and Committees and had now returned to Council to be finalised. Council discussed what was meant by high local interest, but did not make any alteration based on the discussion. One change was made to clause 7, to broaden the words relating to media advertising. The final wording of that dot point was: *additional appropriate media advertising*. The Protocol was then agreed to be final.

11. REPORT FROM THE CEO

The CEO tabled a report covering recent ARPANSA activities. It included a summary of his visit to the IAEA General Conference and Senior Regulators meeting. He also held discussions with regulatory bodies in the Republic of Korea, including a visit to the Hanaro reactor, which is similar in design to the replacement research reactor. ARPANSA is also building a relationship with the Korea Institute of Nuclear Safety. The Maralinga licence has now been issued. It includes licence conditions for ongoing management, and sketches some parameters for a future licence application to decommission the site. Submissions had been made to two Senate committees, on the contract for the replacement reactor, and on electromagnetic radiation. Considerable progress has been made in licensing ANSTO's existing facilities. Public submissions closed on 17 November 2000. The first licensing decisions are expected during the month. A public meeting on the replacement reactor had been held in Sutherland on 9 November 2000.

The CEO advised that he would be going to Argentina in December to an IAEA Conference, to meet with INVAP and the Argentinian regulators. He also advised that Prof. Roger Clarke, Chair of ICRP would be visiting Australia in March 2001 and would meet with RHC.

Members noted that there had been a minor restructure following Dr Cable's retirement, and requested that an up to date organisation chart be provided. Council members also requested that copies of ARPANSA Media Releases be provided to Council members.

12. COMMITTEE & KEY ISSUE REPORTS

12.1 Report from Radiation Health Committee

Mrs Fitch tabled a report on the RHC meeting of 1-2 November 2000. RHC had agreed to the formation of a Business Working Group to progress items out of session. Key issues discussed included:

- dose limits and the review or re-badging of RHS publication 39;
- development of a standard Annex on health effects and dose limits;
- progress on the Transport Code;
- development of a National Directory for Radiation Protection;
- formation of a working group to review the Code on Disposal of Radioactive Waste by the User;
- a proposed work program in the medical radiation area;
- a detailed progress report on the RF Standard; and
- a progress report on review of the Mining Health and Waste Code.

A number of reports were discussed. Of these, the National Uniformity Implementation Panel (Radiation Control), NUIP(RC), had met the day before RHC and was now formally a Working Group of RHC. Updates from Working Groups on a number of drafts in the publication program were received. Other items included the scope of regulation (exclusions, exemptions etc), consultation protocol, re-encapsulation of sources, and lasers in cosmetic surgery. Several items were deferred. The next meeting was scheduled to coincide with Professor Clarke's visit.

Mrs Fitch noted that the RHC would like an update on the Replacement Research Reactor on its next agenda.

12.2 Report from Nuclear Safety Committee

Ms Kidziak tabled a report on the NSC meeting of 10 November 2000. The reports to the meeting included:

- the seismic modelling study;
- dose limits in relation to RHS 39;
- a site-wide airborne discharge authorisation for ANSTO; and
- a proposed site visit to ANSTO by NSC.

The Safety Assessment Principles for Controlled Facilities (SAP) was being reviewed in parallel with the Regulatory Assessment Criteria for the Design of Controlled Facilities and Modification of Existing Facilities (RAC). The SAP was now ready for review by a technical editor, and the RAC review was in its final stage. Any outstanding issues were to be highlighted for specific comment in the public comment process. Both documents would need to be signed off for

public comment in January.

The timetable for consideration of the construction licence for the replacement reactor was discussed. Spent fuel, progress on licensing existing ANSTO facilities, and the information session on 9 November 2000 had also been considered. NSC intended to hold three meetings next year.

12.3 Report on Uniformity Process

A report on progress towards developing a National Directory for Radiation Protection was tabled for members' information.

12.4 Report on NCP Review of Radiation Legislation

A report on progress with the National Competition Principles Review of Radiation Protection Legislation was tabled for members' information.

13. OTHER BUSINESS

There was no other business.

14. CLOSURE AND NEXT MEETING

The next meeting was scheduled for 9 April 2001. The meeting was closed at 3:45 pm.