



## **Summary of the meeting held on 18 June 2004**

### **ARPANSA – Miranda Campus**

#### **OPENING OF MEETING**

All Members attended with the exception of Professor Marcela Bilek who had tendered her apologies.

#### **CONFIRMATION OF THE MINUTES OF THE MEETING OF 5 MARCH 2004**

The minutes of the previous meeting were confirmed without amendment.

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

Members noted that the reports of the Working Groups relating to Engineered Barriers and Hydrogeological aspects of the licence application for the proposed National Radioactive Waste Repository had been completed, consolidated into a single report, forwarded to DEST for response and placed on the ARPANSA web site ([http://www.arpansa.gov.au/pubs/nrwr/nsc\\_report\\_to\\_CEO\\_0404.pdf](http://www.arpansa.gov.au/pubs/nrwr/nsc_report_to_CEO_0404.pdf)).

#### **RHSAC waste Recommendation 2 – Predisposal Management of Spent Fuel – Working Group Report**

Members' suggested some minor changes to the letter of recommendation relating to pre-disposal management of spent fuel. Once the changes were made, the Members recommended that the letter be returned to Radiation Health Committee for final approval at their meeting of 21-22 July 2004.

#### **HIFAR Decommissioning**

Members agreed that the HIFAR Decommissioning document could be kept as a summary at this stage until further information was received from ANSTO. The Committee could give further consideration to the nuclear safety issues needing assessment in any future application for HIFAR decommissioning

#### **NATIONAL RADIOACTIVE WASTE REPOSITORY (NRWR)**

##### **NRWR Progress Report**

DEST had responded to some issues put to them by the CEO and to the IAEA Peer Review report although a full response was not expected for some time. The Committee would be updated on DEST responses at subsequent meetings.

#### **REPLACEMENT RESEARCH REACTOR**

##### **Construction Progress Report**

The Committee were updated on current ARPANSA considerations relating to the construction of the RRR including:

- The vacuum containment of the cold neutron source;
- The thermal effects of the oxide layer on the fuel;
- The status of the molybdenum fuel; and
- Factory acceptance tests for digital control and protection systems.

#### **Licence Condition 4.12 – Staffing, training and organisation**

ANSTO had submitted a document to ARPANSA describing the training structure and regime and outlining which staff would be involved. ARPANSA would be paying particular attention the number of operators on each shift and the level of experience of the shift managers and staff.

## **INTERVENTION RECOMMENDATIONS AND IODINE PROPHYLAXIS**

### **RHC consideration – progress report**

Although the RHC was still discussing whether the marginal improved health impact of moving from an intervention level of 30mGy to 10mGy was justified, it recommended 30 mGy avertable dose as an intervention level for iodine prophylaxis in order for the draft of the recommendations to be circulated for public comment. The RHC also recognised that a lower level offered only a small improvement in Australian circumstances and the overall response to a radiation emergency needed to be optimised. Members were reminded that iodine-131 was only one of many radionuclides released in the event of a major radiological accident.

### **Intervention recommendations**

The Committee was briefed on the changes to the 1990 NHMRC document RHS No 32 *Intervention in emergency situations involving radiation exposure*. The new document, *Draft Recommendations for Intervention in Emergency Situations Involving Radiation Exposure* was designed to incorporate international developments since 1990 included in IAEA safety guides, ICRP 63 and various WHO documents.

A revised version of the draft *Recommendations for Intervention in Emergency Situations Involving Radiation Exposure*, based public comment received on an earlier draft, was available for public comment at [http://www.arpansa.gov.au/drafts/dr\\_inter2.htm](http://www.arpansa.gov.au/drafts/dr_inter2.htm) and would remain so until 6 August 2004.

### **Technical report on radioiodine risks**

The Committee was briefed on the topic of iodine prophylaxis including the following:

- The spontaneous thyroid cancer rate in children was low at 1-2 cases/yr/10<sup>6</sup> compared with 40-50 cases/yr/10<sup>6</sup> for adults;
- Australia used the reference accident model to determine potential radiation health detriment for both ANSTO and visiting Nuclear Powered Warships;
- There was benefit to be gained for children by lowering the intervention level from 100 mGy to 30 mGy however there was more marginal benefit to be gained by lowering the level to 10mGy;
- There were operational difficulties in applying an intervention level of 10 mGy since the planning zones would be larger. Some jurisdictions have considered it easier to evacuate an area than to distribute tablets.

## **REPORTS**

### **General Report from the CEO**

The CEO highlighted several issues in which ARPANSA had been involved since the last meeting including:

- Discussions on the possibility of ANSTO seeking to reduce ‘normal’ staffing at HIFAR from four to three;
- ARPANSA would be requesting ANSTO to finalise its investigations into noble gas releases from Building 54 and to reach a conclusion soon; and
- A visit to the United Kingdom for discussions on radioactive waste management and to Spain for IRPA 11.

### **Report on Council – Meeting of 2 April 2004**

The Committee noted several points that Council had considered at its last meeting including:

- The finalising of a paper on naturally occurring radioactive materials (NORM) issues; and
- A proposal that future radiology surveys include paediatric CT doses.

**Report on RHC – Meeting of 17-18 March 2004**

A statement on solarium was now available on the ARPANSA web site at [http://www.arpansa.gov.au/pubs/rhc/sol\\_rhc\\_04.pdf](http://www.arpansa.gov.au/pubs/rhc/sol_rhc_04.pdf).

The working groups considering transport and waste acceptance criteria issues in relation to the licence application for a NRWR were continuing their work but the topics would be combined.

**National Directory for Radiation Protection**

The public comment period on the National Directory had finished on 2 April 2004 and the document had been revised as a result of comment received. The document has been approved by AHMAC for forwarding to Ministers.

**CLOSURE AND NEXT MEETING**

The next meeting was scheduled for Friday 15 October 2004.