

Nuclear Safety Committee

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

Summary of the meeting held on 8-9 November 2001

ATTENDANCE

All members were in attendance.

CONFIRMATION OF THE MINUTES OF THE MEETING OF 5-6 JULY 2001

The draft minutes were confirmed with minor amendments.

BUSINESS ARISING FROM THE MINUTES

Regulatory Assessment Principles (RAP) and Criteria: Electronic copies had been forwarded to the Committee before the meeting and hard copies were made available at the meeting. Dr Loy advised that ARPANSA's responses to all public comment on the RAP were on the ARPANSA web site.

REPORTS FROM WORKING GROUPS

Dr Loy said that he was still planning to make the decision on the RRR construction licence application in the latter half of February 2002. He would take into account all information available to him then including:

- public submissions;
- the Regulatory Branch evaluation report of the licence application;
- the report of the NSC following the work of the three Working Groups (WG).

ARPANSA had recently circulated an issues paper for the second round of public submissions. This paper had mentioned the issue of physical security. The terrorist attacks on the United States on 11 September had highlighted the security aspect of the proposed reactor.

The Committee was advised that neither ANSTO nor the relevant Minister was driving the February deadline and the planned timing for the licence decision had been known since early in the year.

In terms of timing, it was agreed that each WG should seek to prepare a draft report for consideration at the December meeting. The Committee agreed on a format for a final report. WGs could aim to complete their reports by late December, indicating where they were unable to complete any work and the reason.

The chair said that the final report for Dr Loy's consideration would need the approval of the entire committee. The aim should be for the report to be completed by end January 2002 while recognizing responses from ANSTO to the NSC questions were still outstanding.

Briefing and draft report from the Working Group investigating the Adequacy of the Seismic Design Basis for Important ANSTO RRR Safety Systems

Issues considered by the WG included the criteria to apply for Seismic Design of the Replacement Research Reactor as there was no defined "worlds best practice". The WG noted ANSTO's revised approach but ANSTO would be asked to demonstrate that the damping factor they have incorporated is appropriate.

The Loss of Coolant Accident (LOCA) was an important issue and some causes of a LOCA considered included cracking of the reactor block, damage to the pipework, damage to components such as the pool liner and the design performance criteria of seals including ageing considerations.

The Committee noted that there were still some outstanding issues and that the WG would continue to meet to progress the report.

Briefing and draft report from the Working Group comparing the Accident Analysis in PSAR with Regulatory Assessment Principle 28 and the Reference Accident

The Committee was advised of status of the draft report and the indicative timetable for the review.

The main areas of consideration by the WG were:

- strategy/classification of accidents (design basis and beyond design basis)
- the Reference Accident
- Human Factors
- Sabotage
- the Probabilistic Safety Analysis (PSA)

Concern was expressed that there was not sufficient treatment of Human Factors issues in the PSAR. The US Nuclear Regulatory Commission reports are more comprehensive on this issue and the WG was requested to formulate a clear and specific recommendation regarding the Human Factors aspect of the report before the December 2001 NSC meeting.

There were still some outstanding issues in the PSA and these included failure modes, fuel type, internal fire and human error in a probabilistic sense. The Chair of the WG advised that the framework of a draft report was ready and that he was confident that each issue had been addressed. The NSC Chair requested the WG continue its work until the next NSC meeting in December and formulate recommendations on completion of the matter.

Briefing and draft report from the Working Group investigating the Adequacy of Strategy for Management of Spent Fuel

Some options for spent fuel management considered by the WG included reprocessing, long-term storage off-site and long-term storage on-site. Specific issues considered by the WG included:

- whether overseas reprocessing plants would still be in existence in 20-30 years;
- qualification of fuel type;
- effect of change of fuel type on the operation of the reactor;
- whether reprocessing is world's best practice.

The WG had raised some interesting issues for consideration by the CEO in making a licence decision but many issues regarding storage or disposal were political and social in nature.

OTHER ISSUES

Design of the Replacement Research Reactor — Security Issues

The security of the RRR needed to be re-considered following the events of September 11 in the United States and the Committee was reminded that attempted sabotage of the reactor was not just restricted to organised terrorist groups. The Committee was advised that the security of the RRR, if built, would be continually reviewed and upgraded where appropriate.

The Committee noted a tabled draft paper from the CEO on the assessment of physical protection and security arrangements for the proposed RRR. The paper would be released to the public in the week following the meeting.

Public Forum

The Committee was advised that if there were a change of attitude from stakeholders toward a public forum, there was still opportunity to hold one. If a public forum were to be held, it would now be before mid December 2001.

Reference Accident

The Committee asked what implication the reference accident had on the WG reviews, as it had not been addressed in the PSAR. The Committee as a whole was advised that the PSAR needed to demonstrate that the assumptions involved in the reference accident have been considered and remained valid. This had been a condition on the site licence issued to ANSTO. As part of this, LOCAs must be designed out of the final design of the RRR.

REPORTS

General Report from the CEO

Dr Loy gave a brief report on his recent overseas visit to France, UK and Egypt and to the IAEA General Conference. He advised the Committee about the development of Comprehensive Test Ban Treaty stations in Darwin, Townsville and Kavieng. He also advised that the ARPANSA Annual Report had been tabled in the Parliament.

Report on Council — Meeting of 3 August 2001

The Committee noted the Web Summary of the previous RH&SAC meeting.

Report on RHC — Meetings of 18-19 July 2001 and 31 October-1 November 2001

The Committee noted the Web Summary of the July meeting of the RHC and the agenda of the October/November meeting. The Members were given a copy of the **Statement on Disposal of Domestic Smoke Detectors** produced by RHC for their information.

Transport Code — Progress Report

NSC was advised that the Transport Code was now complete and printed. Copies would be distributed to Australian jurisdictions for implementation.

GENERAL BUSINESS

Ms Kidziak discussed the meeting schedule for 2002. Meetings were provisionally scheduled for 8 March, 5 July and 8 November 2002.

CLOSURE AND NEXT MEETING

The next meeting was scheduled for 6 December 2001.