



Nuclear Safety Committee

Meeting Minutes

Date: Friday, 28 October 2022

Location: Level 3, 38-40 Urunga Parade, Miranda and via video conference

Chair: Dr Tamie Weaver

Members: Ms Fay Bellis, Mr Ian Drinnan, Ms Jasmin Diab, Dr Gillian Hirth, Mr Tony Irwin, Dr John Loy (via video), Mr Cameron MacPhail, Mr Stuart Parr, Dr Peta Miller, Mr Peter Wilkinson, Dr Joanna Wriedt

Secretariat: Mr John Ward, Mr Grant Beamish

Apologies: There were no apologies – all members were present.

Invitees: ARPANSA: Mr Jim Scott, Mr Vaz Mottl,

Observers: Nil

1. Introduction

Item 1.1 Acknowledgement of Country Gillian Hirth

ARPANSA provided an Acknowledgement of Country to open the meeting at 10:00.

Item 1.2 Attendance and Apologies Chair

No apologies for this meeting, all invitees in attendance.

This was the first NSC meeting that the CEO was able to attend since her appointment this year. The NSC welcomed her, and the CEO formally introduced herself to the committee, outlining some challenges that the agency faces and the importance of the NSC in providing its guidance to assist with these challenges.

Item 1.3 Declaration of Potential Conflicts of Interests Chair

The committee was updated on previously declared potential conflicts of interest regarding two NSC members. The committee heard that conditions had changed and are no longer considered to represent potential conflicts of interest.

Item 1.4 Minutes of the previous meeting Chair

Draft minutes of the 10 June 2022 meeting were emailed to members and member comments were addressed. The minutes are published on the [ARPANSA Website](#).

Item 1.5 Meeting dates**Chair**

The dates of upcoming NSC meetings were discussed and it was agreed to move the preferred day for future NSC meetings to a Thursday. The following dates were agreed:

NSC23-01 Thursday 9 February 2023

NSC23-02 Thursday 1 June 2023

NSC23-03 Thursday 12 October 2023

The CEO noted that the Radiation Health and Safety Advisory Council, the Radiation Health Committee and the Nuclear Safety Committee have historically tended to work individually and that there may be benefit in developing stronger interfaces between the three advisory bodies. Noting that the nuclear-powered submarine taskforce is due to identify the optimal pathway to acquire nuclear-powered submarines around March 2023, it was proposed to hold a joint meeting of all of ARPANSA's advisory bodies after this time. A meeting in May 2023 was proposed and will be confirmed.

Item 1.6 Safety/Security Moment**Ian Drinnan**

Mr Drinnan presented the safety moment on the safety culture improvement programme at his organisation, a large metropolitan council with a diverse workforce. The safety moment, highlighting incident reporting, examined the organisational and cultural issues that had led to poor reporting practice, particularly of near misses. A move to less complex, web-based, reporting systems that are accessible in the field was introduced. Incentives to reward and recognise examples of safe workplace behaviours were implemented and safety has become part of employee annual workplace appraisal. The council has experienced an improvement in reporting, greater awareness of safety issues in the workforce and an overall reduction in lost time incidents.

Item 1.7 Outstanding Actions**Chair**

The Committee noted that all outstanding actions were completed.

Ms Diab will present the safety moment in the February 2023 meeting.

Item 1.8 Correspondence**Chair**

The Committee noted that no correspondence was sent or received.

2. Main Items for Discussion**Item 2.1 Discussion Paper – ARPANSA Regulatory Framework****ARPANSA**

The committee was provided a presentation on the outcomes of a review commissioned by ARPANSA from an expert with experience in the regulation of naval nuclear propulsion. The purpose of the review was to identify how Australia's regulatory framework could be further optimised in terms of radiation protection and nuclear safety with the proposed introduction of naval nuclear propulsion. The review provided several recommendations for ARPANSA to consider.

The committee considered the recommendations and were in general agreement that some amendments to the regulatory framework may need to occur depending on the government's decision on the final regulatory model (to be announced in March 2023). The NSC considered that two key principles were for the regulator to be clearly independent of the project organisation and, if not a single regulator, for a clear interface between the regulator of the submarine reactors and the regulator of the shipyards, transport and emergency response and preparedness.

Item 2.2 Advice on principles and attributes of effective and independent nuclear regulators - Gillian Hirth

The committee was provided a copy of advice from the Radiation Health and Safety Advisory Council regarding the principles and attributes of an effective independent regulator for nuclear-powered submarines.

At the request of the CEO, a working group of the NSC was established to review and update related recommendations the Committee provided in 2015 regarding options available for the regulation of an expanded nuclear industry within Australia. At the time this was in response to a South Australian Royal Commission into an expanded Nuclear Fuel Cycle. The CEO asked if the underpinning principles of that advice remain valid in 2022, given the current planned expansion of the nuclear industry in Australia. The updated advice is to be published on the ARPANSA website.

The CEO commented that the RHSAC letter, dated 13/10/22, is more over-arching than the 2015 NSC advice. There are also additional views that the committee can give in a Defence context given the expertise of members.

Action: NSC to review and update, as appropriate, its advice to the CEO provided in 2015 regarding the options available for the regulation of an expanded nuclear industry within Australia in the context of current plans for a fleet of nuclear-powered submarines.

Item 2.3 ARPANSA – Future Workforce Needs Gillian Hirth

The NSC discussed challenges that ARPANSA faces, or may face, going into the future particularly regarding its organisational structure, function, and competencies and an ageing work profile of the regulatory branch. Workforce planning has been challenging as high staff retention, compounded by budget constraints and restrictions on staffing numbers across the agency in the past decade has impacted its development of sustainable workforce. There are also additional workload pressures due to an increasing number of licence assessments expected to be received.

Currently two regulator officer vacancies are being filled and ARPANSA is also recommencing a graduate program. To attract a wider field of applicants in a very tight employment market, ARPANSA has broadened its entry requirements with the view of providing in house and on the job training where needed. ARPANSA will focus on promoting work/life balance and culture, which make ARPANSA an attractive employer, and will target a range of potential employee groups. It was noted that the employment market is likely to remain challenging for the foreseeable future.

The Committee considered that successful regulators typically have staff with operator experience to influence knowledge and it was noted that the UK Office of Nuclear Regulation (ONR) places graduates in a range of operating organisations before their ONR regulator training commences. The potential for this model to be applied at ARPANSA was discussed. Major motivators for recruitment and retention are the goals of an organisation. Members suggested that certain populations could be targeted, for example

people from overseas or parents returning to the workforce who may find ARPANSA's work/life balance and flexible working arrangements attractive. It was also suggested that ARPANSA becomes more active in academia and with industry groups so that it is more visible as an attractive place to work.

Item 2.4 Opal Riser updates

Vaz Mottl

Since the last NSC meeting, ANSTO have provided five reports in total providing updates on testing associated with the Opal Riser; three were dated in June, one in August and another in September. The reports indicated that no new defects were found, and no growth of the known cracks was observed. It is noted that all external riser surfaces are inspected quarterly, the internal area is inspected six-monthly and external welds cracks located in the lower section of the component are monitored monthly.

The PCS Flap Valve modified design was tested during the July OPAL shutdown. The pressure fluctuation during the valve closing action was measured and analysed. The preliminary test results indicated that the modified flap valve performed better than expected. The maximum pressure variation in the PCS circuit was measured and found to be lower than predicted and very much lower than the original flap valve design. ARPANSA will be provided the test report when completed.

The Committee reiterated comments made during the June meeting regarding consolidation of the multi-legged arguments for safety justification before ARPANSA can be satisfied that the reactor remains safe throughout its designed life.

3. Update on major Controlled Facilities and Inspections

Item 3.1 Periodic Safety and Security Reviews

Vaz Mottl

The Committee was provided with an update on progress of the Periodic Safety and Security Review (PSSR) for OPAL.

A high-level review of the OPAL reactor PSSR submission has been completed and a report drafted. Frazer-Nash Consultancy (FNC) carried out the high-level review in accordance with ARPANSA directions. FNC made many observations on safety aspects of the PSSR that will now be considered by ARPANSA during their review of the PSSR. The findings were grouped into 17 common themes. The Committee queried the reason for contracting a consultancy to do this high-level review and was advised that this was due to limited capacity at ARPANSA at the current time due to workload. This additional support for ARPANSA's review of the PSSR would not detract from ARPANSA's own detailed review.

The Committee noted this update.

Item 3.2 ANSTO Health Products & ANM

Vaz Mottl

The Committee was provided with an update on ANSTO Health Products & ANM.

The Committee was provided an update on the progress of an Implementation Plan developed to address the findings on a 2018 independent review of safety at ANSTO Health Products. ARPANSA have completed evaluating evidence of actions to address the outstanding recommendations of the independent review. ARPANSA will now produce an assessment report to summarise the regulatory outcomes from the implementation plan.

ARPANSA is expecting an update on progress from ANSTO with options to resolve the issue of seepage of rainwater into a conduit housing a pipeline that will be used for the transfer of liquid intermediate level radioactive waste from the ANSTO Nuclear Medicine (ANM) facility to the ANSTO SyMo waste processing facility. A copy of ANSTO's investigation report has been requested by ARPANSA.

The Committee noted these updates.

Item 3.3 Other updates

Vaz Mottl

The Committee was provided an update on other regulatory activities undertaken by ARPANSA including inspections, enforcements, and licencing. The Committee was advised that ARPANSA expected to receive an application to decommission the HIFAR reactor soon and a further decommissioning application for the Camperdown cyclotron facility next year. The Committee was told that the last significant decommissioning projects were licenced a little over ten years ago. These were the ANSTO Moata reactor and the Camperdown National Medical Cyclotron (the predecessor of the current cyclotron that is now due to be decommissioned).

ARPANSA informed the Committee of several breaches by ANSTO Waste Management regarding a deviation from a weekly check requirement for a cooling pond level. ARPANSA is ensuring that measures are taken to prevent recurrence.

4. Reports

Item 4.1 ARPANSA significant Activities

Gillian Hirth

The Committee was provided an update on significant ARPANSA activities. This included:

- A follow up of the IAEA Integrated Regulatory Review Service (IRRS) is being planned for October 2023. This will follow-up on the progress of recommendation from the 2018 mission.
- Progress on the national strategy on radiation safety which was out for public comment in late 2021 (coordinated by Commonwealth Department of Health and Ageing). The finalisation of the strategy is likely to be postponed until after March 2023.
- Work is progressing on a review of the reference accident for visiting nuclear powered warships and is expected to be completed by the end of 2023.
- An inaugural Australian Radioactive Waste Agency (ARWA)/ARPANSA CEO level meeting has been held. ARWA will become a significant stakeholder of ARPANSA as the program for establishing a National Radioactive Waste Management Facility progresses. The initial discussions focussed on ARWA's safety case development. ARPANSA is drafting an updated regulatory guide covering its expectations for the ARWA safety case and application which will be provided to the NSC for consultation. The potential implications of ongoing legal challenges were also noted.

Item 4.2 Radiation Health Committee**Fay Bellis**

The Committee was provided a summary of the recent activities of the Radiation Health Committee. Minutes of the Radiation Health Committee meetings can be downloaded from the ARPANSA website.

Item 4.3 Radiation Health and Safety Advisory Council**Gillian Hirth**

The Committee was provided a summary of the recent activities of the Radiation Health and Safety Advisory Council. Minutes of the Radiation Health and Safety Advisory Council meetings can be downloaded from the ARPANSA website.

Item 4.4 Member of Public Update**Joanna Wriedt**

No issues or submissions were received.

5. Other Business

There was no other business.

6. Information on Nuclear Safety Matters and Regulatory Activities

Item 6.1 International Engagement Reports

The Committee noted the item.

Item 6.2 Public consultation and publications

The Committee noted the item.

7. Closure and Next Meeting

The meeting closed at 15:05 and the next meeting is scheduled for 9th February 2023.