



Australian Radiation Protection and Nuclear Safety Agency

**FIRST ROUND PUBLIC SUBMISSIONS ON
ANSTO's APPLICATION FOR A FACILITY LICENCE TO CONSTRUCT THE
PROPOSED REPLACEMENT RESEARCH REACTOR**

STATEMENT BY THE CEO OF ARPANSA

Background

In September 1997, the Commonwealth Government decided that the Australian Nuclear Science and Technology Organisation (ANSTO) should proceed to replace the HIFAR (High Flux Australian Reactor) research reactor at the Lucas Heights Science and Technology Centre (LHSTC) in New South Wales. On 7 April 1999, ANSTO applied for a facility licence to prepare the Lucas Heights site for the proposed Replacement Research Reactor (RRR), and on 22 September 1999 I issued such a licence. On 18 May 2001 ANSTO applied for a Facility Licence to construct the proposed RRR.

The principal basis for the application is a detailed (12 volume) Preliminary Safety Analysis Report (PSAR). This document describes the safety features of the reactor design in some detail and presents analyses of the possible accidents and how these are dealt with by the design. An accompanying Probabilistic Safety Assessment (PSA) analyses possible accidents beyond the designed capability of the plant.

The Public Submission Process

On 5 June 2001, I invited public submissions on ANSTO's application. Advertisements were placed in *The Australian* and in the *Government Gazette*. Media releases were sent to all major newspapers and peak environmental groups and interested organisations. Full copies of the application and PSAR were made available for public reading at the following locations:

- the National Library in Canberra and each of the State and Territory libraries.
- the Sutherland Shire Council Library and its Engadine and Menai branch libraries in NSW.
- Liverpool City Central Library in NSW.
- the ARPANSA Public Resource Room in 9/19-21 Central Road, Miranda, NSW.
- the ARPANSA office in Lower Plenty Road, Yallambie, Victoria.

Summary copies of ANSTO's application and PSAR were placed on the ARPANSA website. In addition, free paper and CD-ROM copies of the summary documentation were made available on request from ARPANSA. Further information was subsequently disseminated including:

- the final report of the international Peer Review of the Preliminary Safety Analysis Report (PSAR) of the RRR (20 July 2001).
- questions asked by ARPANSA following initial review of the application and the answers provided by ANSTO.

The first round of public submissions closed on 5 September 2001 but later submissions were accepted

Submissions Received

About 11,500 submissions have been received. Due to the large number of submissions, it was possible to log only about 4,000 submissions to-date. All submissions will be logged and the exact number of submissions will be confirmed when my decision on the application is released. Nevertheless, my staff determined that of the approximately 11,500 submissions received, about 11,150 are pro-forma letters with identical information. Most of these pro-forma letters were collected and delivered to me by Greenpeace. Of the remaining 350 submissions, about 325 submissions are mainly variations of the form letter.

The provision of information to the public on the application has been extensive and unprecedented. I am pleased that so many people took the trouble to provide submissions, and I will be considering the content of all submissions when making my decision on the application

Summary of Issues

Submissions were received on most topics in ANSTO's Application, the PSAR and supporting documentation. The topics that attracted most interest were as follows:

- Net Benefit: respondents felt that there is no need for the RRR as scientific research can be done overseas and radioisotopes can be imported or produced by other means.
- Spent Fuel: submissions argued that the arrangements for spent fuel management were unresolved in that there appeared to be uncertainties about the applicability of the reprocessing contract with COGEMA in France and the option of using Argentinian arrangements was seen as questionable. It was claimed that the issue of dealing with spent fuel in Australia should have been addressed in the application.
- Radioactive Waste: submissions proposed that there was insufficient progress and a lack of certainty about an intermediate-level waste store and that the low-level waste repository EIS process would not have progressed at the time a construction licence decision is planned for.
- Safety Analysis: issues included seismic activity levels and the relationship to the siting 'reference accident', human error, loss of flow events and sabotage.
- Site Characteristics: issues included the effectiveness of the 1.6km buffer zone around the LHSTC and public exposure to discharge gases.
- The Reactor: respondents were concerned about power distribution in the core, reactor controls and shutdown systems and thermal-hydraulic design in relation to possible control plate withdrawal accidents.
- Engineered Safety Features: matters raised included the effectiveness of the second shutdown system and the adequacy of the reactor containment systems.

- Auxiliary Systems: issues included design of the fuel storage and handling and fire protection systems. The heating, ventilation and air-conditioning systems were addressed in relation to Argon-41 emissions.
- Operational Radiological Safety: matters raised included dose estimates for normal operations and reports of higher cancer rates among people living near nuclear reactors.
- Conduct of Operations: respondents were concerned about staff qualifications and training.
- Environmental Assessment: respondents pointed out that ANSTO had not yet complied with all the conditions imposed when the Environmental Impact Statement (EIS) on the RRR was approved.
- Probabilistic Safety Assessment (PSA): the adequacy of the PSA was questioned, including in relation to risks from internal fires, aircraft crash, vehicle bombs, earthquakes and human error.

Next Steps

As I had indicated at the start of the first round public submission process, there will be an opportunity for a more focussed second round of public submissions. Within the next two weeks I will invite public submissions on issues papers setting out major matters related to the safety of the proposed RRR where further public input is sought on questions arising from these matters. All submission on these issues papers will be taken into account when I make my decision.

In addition, all technical issues raised by respondents in the first round of public submissions will be taken into consideration during the detailed review. Where further information is needed, these issues will be sent as questions to ANSTO. The questions and answers will be made available to the public on the ARPANSA web site or by hard copy on request.

I am continuing to plan to make my decision on ANSTO's application in February 2002. One of the reports forming the basis of my deliberations will be a Public Submissions Report that my staff will have prepared by mid January 2002. All deliberative documents will be made public when my decision is announced.



John Loy
CEO of ARPANSA
11 October 2001