

Senate Standing Committee on Economics
ANSWERS TO QUESTIONS ON NOTICE
Innovation, Industry, Science and Research Portfolio
Budget Estimates Hearing 2011-12
30 May 2011

AGENCY/DEPARTMENT: AUSTRALIAN NUCLEAR SCIENCE AND TECHNOLOGY ORGANISATION

TOPIC: Moata Reactor

REFERENCE: Question on Notice (Hansard, 30 May 2011, E9)

QUESTION No.: BI-1

Senator LUDLAM: I wonder if you can give us an update on the decommissioning first of the small Moata reactor, which I understand is still underway, and secondly for the HIFAR reactor. Can you just give us an update on the status of both of those?

Dr Paterson: The Moata reactor has completed its decommissioning. On 17 May we received a letter from ARPANSA—the regulator—indicating that they had satisfied themselves that the decommissioning activities were indeed complete. Therefore, we have successfully completed the first decommissioning of our reactor in Australia. That was a very positive process for us. It was under the scrutiny of the IAEA, and it also won the New South Wales engineering project award from last year and the small project award at the national level. So it was a very controlled, carefully thought through, planned and executed exercise which has successfully decommissioned that reactor.

Senator LUDLAM: Okay. Where is the contaminated material currently being stored?

Dr Paterson: The contaminated material is currently stored in our stores on the site. The ultimate destination in international best practice would be to a national repository.

Senator LUDLAM: So that would be removed if and when a national repository is established. What is the volume of the material and in what form is it?

Dr Paterson: I will take that on notice, Senator.

SENATOR LUDLAM: Thanks, if you could. Also how you treat and condition that material—that would be appreciated

ANSWER

The quantity of radioactive waste material generated from the decommissioning of the MOATA Reactor included:

- 115 Tonnes (approx 55 m³) of low level solid waste, of which 90 per cent is low activity concrete and 10 per cent is lightly activated steel and other metals;
- 12 Tonnes of lightly activated activity graphite; and
- 100g of intermediate level waste (stainless steel).

The low activity solid concrete waste is currently stored in engineered steel containers. The containers are currently stored in the ANSTO Low Level Solid Waste Storage facility. When the National Radioactive Waste Management Facility is established, the MOATA low level waste will be further conditioned (the containers will be filled with cement grout) and will comply with

specific Waste Acceptance Criteria for disposal at the National Radioactive Waste Management Facility.

The lightly activated solid graphite waste material is also stored in engineered steel containers within ANSTO's Nuclear Materials Store. Final disposal of the activated graphite will most likely also be at the National Radioactive Waste Management Facility, and will also have to comply with specific Waste Acceptance Criteria.

The intermediate level waste will be conditioned together with other intermediate level wastes prior to dispatch to the National Radioactive Waste Management Facility, and will also have to comply with specific Waste Acceptance Criteria (in that case, criteria for the Store rather than the disposal facility).