



Australian Nuclear Science and Technology Organisation Amendment Bill 2006

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Law and Bills Digest Section

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Australian Nuclear Science and Technology Organisation Amendment Bill 2006

Date introduced: 30 March 2006

House: House of Representatives

Portfolio: Education, Science and Training

Commencement: On Royal Assent

Purpose

To allow the Australian Nuclear Science and Technology Organisation (ANSTO) to prepare, manage or store radioactive materials from a much wider range of sources and circumstances than presently permitted under the *Australian Nuclear Science and Technology Organisation Act 1987*.

Background

Expanding ANSTO's functions

According to its website:¹

The Australian Nuclear Science and Technology Organisation (ANSTO) is Australia's national nuclear research and development organisation and the centre of Australian nuclear expertise...it is responsible for delivering specialised advice, scientific services and products to government, industry, academia and other research organisations....

ANSTO's nuclear infrastructure includes the research reactor, HIFAR (High Flux Australian Reactor), particle accelerators, radiopharmaceutical production facilities, and a range of other unique research facilities. HIFAR is Australia's only nuclear reactor. It is used to produce radioactive products for use in medicine and industry, as a source of neutron beams for scientific research and to irradiate silicon for semiconductor applications. A replacement for HIFAR, OPAL – the Open Pool Australian Light-water reactor – is in its final stages of construction.

ANSTO also operates the National Medical Cyclotron, an accelerator facility used to produce certain short-lived radioisotopes for nuclear medicine procedures. It is located in the grounds of the Royal Prince Alfred Hospital in Camperdown.

ANSTO also manages Australian synchrotron facilities at a number of overseas locations.

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Existing section 5 of the *Australian Nuclear Science and Technology Organisation Act 1987* (the ANSTO Act) sets out the functions of ANSTO. It includes the limitation that ANSTO may condition (that is, prepare), manage or store *only* those radioactive materials associated with the organisation's activities, unless specified by regulation.² No regulations currently authorise ANSTO's dealing with radioactive materials associated with other persons or agencies.

The legislative authority for ANSTO to do things in pursuance of its statutory functions extends to activities undertaken overseas: subsection 6(2).

According to the Explanatory Memorandum, the Bill is designed to extend ANSTO functions to handle radioactive materials in three broad additional scenarios:

- Participate in the management of radioactive material and waste in the possession or under the control of any Commonwealth entity. This would include material designated to be stored at the proposed Commonwealth radioactive waste management facility in the Northern Territory.³ Indeed, the Minister's second reading speech indicates that ANSTO may be charged with operating that facility.
- Where requested by a Commonwealth, State or Territory law enforcement or emergency response agency, deal with radioactive material and waste arising from a relevant incident, including a terrorist or criminal act.⁴
- Dealing with intermediate level waste (originating from spent nuclear fuel from ANSTO's nuclear reactors) that is returned to Australia from overseas reprocessing facilities for storage and/or disposal. Note that under the contractual arrangements ANSTO has with the reprocessing plants in Scotland and France, Australian spent fuel may be combined with spent nuclear fuel from other sources and processed in bulk campaigns. Thus, technically, returned waste is not exclusively from ANSTO's reactors.

Radioactive waste and spent nuclear fuel management in Australia

The Parliamentary Library Chronology titled 'Radioactive Waste and Spent Nuclear Fuel Management in Australia', recently updated and found online at:

<http://www.aph.gov.au/library/pubs/online/RadioactiveWaste.htm>, details the nature of nuclear waste located in Australia and the long and complex history of the storage arrangements involved. In particular, the introduction outlines waste types and storage requirements. The references and links provided at the end give detail; eg: <http://www.ansto.gov.au/info/reports/manradw/wastem1.html> and more extensively <http://www.radioactivewaste.gov.au/> provides a listing of waste storage around Australia including that at ANSTO.

In late 2005, Parliament passed the *Commonwealth Radioactive Waste Management Act 2005*. Its main purpose was to strengthen the Commonwealth's legal ability to develop and

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operate the proposed Commonwealth radioactive waste management facility in the Northern Territory by:

- providing legislative authority to undertake the various activities associated with the proposed facility
- overriding or restricting the application of laws that might hinder the facility's development and operation, and
- providing for the acquisition or extinguishment of rights and interests related to land on which the facility may be located.

More detail is contained in the relevant [Bills Digest](#).⁵

Commentary on the Bill

On 30 March 2006, the Bill was referred to the Senate Employment, Workplace Relations and Education Committee for report. Only one submission was received from a non-Commonwealth body, namely the Federation of Australian Scientific and Technological Societies (FASTS). In its submission, FASTS commented:⁶

it is prudent and rational that the scope of ANSTO's legislated functions be broadened so other Commonwealth agencies or law enforcement agencies and Commonwealth, State or Territory emergency or disaster agencies can access its considerable expertise handling radioactive materials and waste.

The Committee [report](#) was tabled on 10 May. The majority report recommended the passing of the Bill. Minority reports by the ALP and Australian Democrats expressed concerns relating to radioactive waste generation and management issues.

Financial implications

The Explanatory Memorandum states that the 'financial impact is considered to be negligible'. However, it is of note that in its submission to the Senate Committee, FASTS recommended that:⁷

ANSTO services for the conditioning, management and storing of radioactive materials and waste possessed or controlled by the Commonwealth, State and Territory or their entities or for Commonwealth, State and Territory law enforcement agencies or disaster/emergency services be provided on a full cost recovery basis.

Although not directly related to the Bill, the 2006-07 Federal Budget appropriated \$129,653,000 to ANSTO for 2006-07, a rise of \$12 million over the previous financial year. However, the overall budgeted expenditure is to fall from \$138 million to \$130

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million partly as a consequence of the completion of the replacement research reactor and the disposition of spent fuel rods.⁸

Main provisions

Items 1 to 6 insert various definitions into subsection 3(1) of the ANSTO Act.

Item 7 expands ANSTO functions as discussed in the background. ANSTO will now be able to deal with:

- radioactive material and waste generated by, in the possession of, or under the control of the Commonwealth or any Commonwealth entity. Note that because of the effect of **items 2, 6 and 8**, this would include any material or waste generated by, in the possession of, or under the control of, a contractor or subcontractor pursuant to a contract between the Commonwealth and another person or entity.
- where requested by a Commonwealth, State or Territory law enforcement or emergency response agency, radioactive material and waste arising from a radiological incident or emergency. Note that neither the ANSTO Act nor the Bill define what is a radiological incident or radiological emergency.
- radioactive waste which is returned to Australia from overseas reprocessing facilities for storage and/or disposal.

Existing subsection 5(5) places some further broad restrictions on the operation of ANSTO such that it may only exercise its legislative functions to the extent that these are supported by certain provisions of the Constitution. **Item 10** adds the defence power (section 51(vi) of the Constitution) to the list of these Constitutional provisions. This is presumably to provide a more solid basis for ANSTO's possible future activities in responding to terrorist incidents or threats.

Concluding Comments

As mentioned earlier in this Digest, paragraph 5(1)(ba) of the ANSTO Act only allows ANSTO to deal with 'non-ANSTO' radioactive materials if this is authorised by regulation. However, existing subsection 5(1A) provides that such a regulation:

must not have the effect of authorising the premises on which the Lucas Heights Research Laboratories are situated to become a national nuclear waste repository.

This limitation is not contained in **new paragraph 5(1)(bb)** which allows ANSTO to deal with radioactive material and waste generated by, in the possession of, or under the control of the Commonwealth or any Commonwealth entity. However, given the increased legal

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ability of the Commonwealth to establish and operate such a repository or facility in the Northern Territory under the *Commonwealth Radioactive Waste Management Act 2005*, there will presumably be a reduced likelihood Lucas Heights could be used to store any significant quantities of non-ANSTO radioactive materials.

Endnotes

1. <http://www.ansto.gov.au/ansto/about.html>
2. Paragraph 5(1)(ba).
3. <http://www.aph.gov.au/library/pubs/bd/2005-06/06bd059.pdf>
4. As an aside, ANSTO claims to be using its knowledge of nuclear science and technology to assist several international counter-terrorism initiatives. These may include measures to help stop illegal radioactive and nuclear materials being smuggled across borders. Developments in radiation detectors are an associated measure. (ANSTO 2006, *Future Vision*, p. 18.).
5. No. 59 2005-2006.
6. Submission no.1 to the Senate Employment, Workplace Relations and Education Committee inquiry into the provisions of the Australian Nuclear Science and Technology Organisation Amendment Bill 2006 at p. 1. See: http://www.aph.gov.au/Senate/committee/eet_ctte/nuclear_science/submissions/sub01.pdf
7. *ibid.*, p. 3.
8. Information on ANSTO 2006-2007 budget appropriations and related matters can be found at: http://www.dest.gov.au/NR/rdonlyres/1F9E29BD-0079-4B30-97ED-221AE39046AF/10409/200607_DEST_PBS_11_ANSTO.pdf

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