

CHAPTER 1

INTRODUCTION

Purpose of the Bill

1.1 On 4 February 2010, the Senate referred the provisions of the Radioactive Waste Management Bill 2010 (the Bill) for inquiry and report by 30 April 2010.

1.2 The committee presented an interim report to the Senate on 30 April 2010, indicating that it required further time to consider the evidence presented during the course of the inquiry, and that its final report would be tabled on 7 May 2010.

1.3 The purpose of the bill is to repeal the *Commonwealth Radioactive Waste Management Act 2005* and to substitute a new process to select and establish a facility for managing, at a single site, radioactive waste arising from medical, industrial and research uses of radioactive material in Australia.

Background¹

Radioactive waste production

1.4 Different types of radioactive waste may be classified according to the International Atomic Energy Agency (IAEA) classification of radioactive waste. These are:

- Low level waste: contains enough radioactive material to require action for the protection of people, but not so much that it requires shielding in handling, storage or transportation.
- Short-lived intermediate level waste: requires shielding but needs little or no provision for heat dissipation, and contains low concentrations of long-lived radionuclides. Radionuclides generally have a half-life of less than 30 years.
- Long-lived intermediate level waste: requires shielding but needs little or no provision for heat dissipation. Concentrations of long-lived radionuclides exceed limitations for short-lived waste (as defined above).
- High level waste: contains large concentrations of both short- and long-lived radionuclides, and is sufficiently radioactive to require both shielding and cooling.²

1 Parts of the following background are based on the December 2008 report of the Senate Standing Committee on Environment, Communications and the Arts, *Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill 2008*, 18 December 2008.

1.5 Radioactive waste in Australia is produced by various sources, including uranium mining and processing operations, research activities (many of which are conducted at the Australian Nuclear Science and Technology Organisation (ANSTO) research reactor at Lucas Heights in New South Wales), and nuclear medicine. In his second reading speech, the Minister for Resources and Energy, the Hon. Martin Ferguson MP, observed:

In terms of radioactive waste, Australia produces low-level and intermediate-level waste through its use of radioactive materials.

Low-level waste includes lightly contaminated laboratory waste, such as paper, plastic, glassware and protective clothing, contaminated soil, smoke detectors and emergency exit signs.

Intermediate-level waste arises from the production of nuclear medicines, from overseas reprocessing of spent research reactor fuel and from disused medical and industrial sources such as radiotherapy sources and soil moisture meters.³

1.6 The Minister noted that the production of low level and intermediate level radioactive waste is 'an unavoidable result of many worthwhile activities'.⁴ The explanatory memorandum (EM) states that Australia's current radioactive waste inventory stands at just over 4020m³ of low level and short-lived intermediate level radioactive waste, and approximately 600m³ of long-lived intermediate waste.⁵

1.7 Currently, radioactive waste produced in Australia is not stored at a central repository, but across numerous sites. Dr Adrian Paterson, the Chief Executive Officer of the Australian Nuclear Science and Technology Organisation (ANSTO), advised the committee that:

The current situation where radioactive waste is held in over 100 separate locations around Australia is not conducive to the safety and security of that material, nor is it consistent with international best practice.⁶

1.8 However, Mr Dave Sweeney from the Australian Conservation Foundation (ACF) questioned the extent to which the Bill would result in reducing the number of radioactive stores in Australia:

A very important thing for senators to be mindful of in this is that every facility, every institute, every hospital, every place that currently uses or stores radioactive waste—with the exception of legacy waste, some Department of Defence waste—will continue to do so post the

2 Standing Committee on Environment, Communications and the Arts, *Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill 2008*, 18 December 2008, p. 2.

3 *House of Representatives Hansard*, 24 February 2010, p. 1649.

4 *House of Representatives Hansard*, 24 February 2010, p. 1649.

5 EM, p. 4.

6 *Proof Committee Hansard*, 30 March 2010, p. 23.

establishment of a national facility, if one is established...We are not reducing by a vast number the number of sites around Australia, and to pretend that we are is not proper.⁷

1.9 Dr Paterson felt that a centralised national store would lead to a significant reduction in the number of dangerous used and/or orphaned radioactive sources currently stored across numerous sites. Dr Paterson commented that unused industrial sources posed the greatest risks:

As [radioactive sources which are used for industrial purposes]...come to the end of their life cycle or as changes take place in the facilities that manage those sources, they can be stored in a way that memory loss about where they are stored and what their potential risks are takes place, and then they do tend to end up in places like filing cabinets or under stairs...

So we are absolutely certain that the greatest radiological risk that the public faces is not from the Opal reactor but from the unmanaged access to these sources.⁸

1.10 Dr Paterson considered that a centralised national facility such as the Bill provides for would ameliorate the risks associated with the current approach to storage and management of unused industrial sources:

The opportunity that this legislation provides is for that management practice to now be established at a national level and to be available nationally to all of the small holders of these used sources and the orphan sources in Australia.⁹

1.11 The ANSTO submission also noted that 'indefinite storage of radioactive waste by small holders is not consistent with international best practice'. The provision of 'central disposal facilities or stores' would minimise the risks arising from unwanted radioactive materials'.¹⁰

1.12 The EM to the Bill explains:

Most existing stores were not specifically designed for long term radioactive waste storage. Centralisation minimises the risk of inadvertent loss or control of radioactive material with consequential safety and security risks.

Radioactive waste management is governed by rigorous national and international standards. Extensive experience has been gained from over 100 low-level waste disposal facilities in more than 30 countries and a range of geographic conditions.¹¹

7 *Proof Committee Hansard*, 30 March 2010, p. 43.

8 *Proof Committee Hansard*, 30 March 2010, p. 28.

9 *Proof Committee Hansard*, 30 March 2010, p. 28.

10 *Submission 120*, p. 1.

11 EM, p. 4.

1.13 In a 2009 letter to the Minister, ANSTO observed that, given the ad hoc approach to waste management in Australia, it is only 'by good fortune that, to date, there have been no serious safety incidents involving [disused high-activity radiation sources].¹² ANSTO expressed the view that the potential risks associated with Australia's present approach to radioactive waste management – particularly in relation to high activity radiation sources – should be a critical factor in the government's consideration of the establishment of a national facility:

...it would seem important to take this issue into account in the context of the government's current review of national radioactive waste management policy. In particular, the government might consider whether it would be preferable for a single national store – meeting appropriate safety and security standards – to be created, rather than waiting for the eight states and territories to site and construct facilities. Early attention to the attendant national security risk would be timely.¹³

History of effort to build a radioactive waste management facility in Australia

1.14 The process of identifying a site for storage or disposal of Australian radioactive waste began in 1978, when the state and territory health ministers requested that the Commonwealth co-ordinate a national approach to the management of radioactive waste.¹⁴

1.15 In 1985, the Commonwealth-State Consultative Committee on Radioactive Waste Management recommended that a 'national program be initiated to identify potentially suitable sites for a national near-surface radioactive waste repository'.¹⁵ A national project to develop a site for disposal of low level and short-lived intermediate radioactive waste began in 1992, resulting in the selection of a site for the facility in South Australia in 2003, which the Commonwealth acquired under the *Lands Acquisition Act 1989*. However, in 2004, this acquisition was quashed by the Federal Court of Australia, which found that the Commonwealth had misused the urgency provisions of the *Lands Acquisition Act 1989* in acquiring the site.¹⁶

1.16 On 14 July 2004, the Commonwealth Government announced that the joint Commonwealth-state process would be abandoned. The government indicated that it would be examining (Commonwealth land) sites for the establishment of a facility to

12 ANSTO, letter to Minister Ferguson (22 July 2009), tabled 30 March 2010, p. 2.

13 ANSTO, letter to Minister Ferguson (22 July 2009), tabled 30 March 2010, p. 2.

14 Standing Committee on Environment, Communications and the Arts, *Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill 2008*, 18 December 2008, p. 3.

15 Standing Committee on Environment, Communications and the Arts, *Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill 2008*, 18 December 2008, p. 3.

16 Parliamentary Library, 'Radioactive waste and spent nuclear fuel management in Australia', 1 January 2006, accessed 23 March 2010.

manage wastes that were the Commonwealth's responsibility, while leaving states and territories to manage their wastes. In July 2005, three (Defence) sites in the Northern Territory were identified as potential locations for the facility, and two pieces of legislation (the *National Radioactive Waste Management Act 2005* and the *Commonwealth Radioactive Waste Management Legislation Amendment Act 2006*) were subsequently passed to support the examination and selection of these sites.¹⁷

1.17 Over 2006-08, consultants Parsons Brinckerhoff (PB) undertook a preliminary study on the suitability of the three Defence sites (and Muckaty Station) as potential sites for the radioactive waste facility.

1.18 The objective of the *Commonwealth Radioactive Waste Management Act 2005* (the current Act) is to enable the Commonwealth to establish and operate a 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.¹⁸

1.19 The current Act was introduced partly as a response to the Northern Territory's *Nuclear Waste Transport, Storage and Disposal (Prohibition) Act 2004*, which made it an offence in the Northern Territory to 'construct or operate a nuclear waste storage facility', or to transport nuclear waste into the Northern Territory. However, it also aimed broadly to limit or suspend any Commonwealth, state or territory legislation that could prevent the establishment of the waste facility.

1.20 The *Commonwealth Radioactive Waste Management Legislation Amendment Act 2006* (the CRWM Act 2006) was introduced in order to facilitate nominations for the radioactive waste facility site by a Northern Territory land council. It did this by:

- creating a process whereby the land on which a facility is to be located can be handed back to traditional owners;
- exempting the process of such nominations from the application of the *Administrative Decisions (Judicial Review) Act 1977* (ADJR Act); and

17 The PB report was finalised in February 2010, and was tabled in the Senate on 11 March 2010 pursuant to a Senate order for the production of documents on 25 February 2010. The report is available at http://www.ret.gov.au/resources/radioactive_waste/waste_mgt_in_aust/Pages/RadioactiveWasteManagementinAustralia.aspx

18 Parliamentary Library, 'Commonwealth Radioactive Waste Management Bill 2005', *Bills Digest*, 28 October 2005, p. 2.

- in the case of nominations put forward by a land council, stating that a failure to follow full consultation processes will not invalidate a nomination.¹⁹

1.21 In May 2007, the Northern Land Council (NLC) nominated a site for consideration under the current Act (that is, the *National Radioactive Waste Management Act 2005*), and on 27 September 2007, the then Minister for Education, Science and Technology, the Hon. Julie Bishop MP, accepted that nomination.

1.22 The nominated site, 120 kilometres north of Tennant Creek on Muckaty Station in the Northern Territory, became the fourth site under consideration, together with the three identified by the Commonwealth in 2005.²⁰

1.23 Prior to the election of the Rudd Labor Government in 2007, the ALP committed to the repeal of existing legislation as part of its National Platform.²¹ This pledge was highlighted in a joint press release by Senator the Hon. Kim Carr (the then Shadow Minister for Industry, Innovation, Science and Research), Northern Territory Senator Trish Crossin, and the Hon. Warren Snowden MP (the member for the electorate of Lingiari in the Northern Territory). The press release stated:

Labor will legislate to restore transparency, accountability and procedural fairness including the right of access to appeal mechanisms in any decisions in relation the...[siting] of any nuclear waste facilities.

Labor will ensure that any proposal for the siting of a nuclear waste facility on Aboriginal Land in the Northern Territory would adhere to the requirements that exist under the Aboriginal Land Rights, Northern Territory Act (ALRA).

Labor will restore the balance and pending contractual obligation...will not proceed with the establishment of a nuclear waste facility on or off Aboriginal land until the rights removed by the Howard government are restored and a proper and agreed site selection process is carried out.²²

1.24 On the introduction of the Bill to the Senate in February 2010, the Minister noted:

The repeal of the current act meets a 2007 ALP Platform commitment.²³

19 Standing Committee on Environment, Communications and the Arts, *Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill 2008*, 18 December 2008, p. 5.

20 See paragraph 1.9.

21 Australian Labor Party, *National Platform and Constitution 2007*, Chapter 5, 'Nuclear Waste Facilities', http://pandora.nla.gov.au/pan/22093/20071124-0102/www.alp.org.au/platform/chapter_05.html#5uranium

22 'Govt's waste dump fiasco, cont'd', 6 March 2007, p. 1.

23 *House of Representatives Hansard*, 24 February 2010, p. 1650; and EM, p. 2.

1.25 In 2008, the Senate Standing Committee on the Environment, Communications and the Arts conducted an inquiry into the Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill 2008, introduced by Senator Scott Ludlam (Australian Greens). The objective of the Bill was to repeal the current Act and the CRWM Act 2006.²⁴

Conduct of the inquiry

1.26 The committee advertised the inquiry in *The Australian* and *Northern Territory News* newspapers on 3 and 10 March 2010, and invited submissions by 15 March 2010. The committee also wrote to a number of organisations and individuals inviting submissions. Details of the inquiry, the Bill and associated documents were placed on the committee's website.

1.27 The committee received 237 submissions, as well as a number of pro forma submissions (from 57 individuals), which were placed on the committee's website for ease of access by the public. These are listed at Appendix 1.

1.28 The committee held two public hearings, in Canberra on 30 March 2010 and in Darwin on 12 April 2010. Witnesses who appeared at the hearing are listed at Appendix 2. The *Hansard* transcript is available through the Internet at <http://aph.gov.au/hansard>

Acknowledgement

1.29 The committee thanks the organisations and individuals who made submissions and gave evidence at the public hearings. The committee also acknowledges and thanks those traditional owners who travelled to Canberra and Darwin in order to participate in the hearings for the inquiry.

Note on references

1.30 Submission references in this report are to individual submissions as received by the committee, not to a bound volume. References to the committee *Hansard* are to the proof *Hansard*. Page numbers may vary between the proof and the official *Hansard* transcripts.

24 Senator Scott Ludlam, *Senate Hansard*, 25 September 2008, p. 5588. The committee's report is available at http://www.aph.gov.au/senate/committee/eca_ctte/radioactive_waste/index.htm

