

# Chapter 1

## Introduction

### Referral to the Committee

1.1 On 25 September 2008, the Senate referred the Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill 2008 (hereafter 'the bill') to the Senate Environment, Communications and the Arts Committee for inquiry and report by 10 November 2008. On the 14th October 2008, the Senate granted an extension of time to report until Thursday, 4 December 2008, and a further extension of time to report, until Thursday, 18 December 2008.

1.2 The committee advertised the inquiry in the *Australian* newspaper, and placed details of the inquiry on the committee's website. The committee also wrote to a number of organisations and stakeholder groups inviting written submissions by 31 October 2008.

1.3 The committee received submissions from 103 individuals, groups and organisations, as listed at Appendix 1. The committee held public hearings in Alice Springs on Monday 17 November and Tuesday 18 November 2008, as well as in Canberra on Friday 28 November 2008. A list of those who gave evidence at this hearing is at Appendix 2. The committee thanks Australian Nuclear Science and Technology Organisation (ANSTO) for its assistance with the inquiry, including facilitating a visit by committee members to its Lucas Heights facility. The committee thanks all those who assisted with its inquiry.

### Radioactive Waste

1.4 Australia has an inventory of radioactive waste that has arisen from uranium mining and processing operations, research activities, and from ANSTO's reactor operations at Lucas Heights in New South Wales.<sup>1</sup> Almost all new radioactive waste has its origins at Lucas Heights.

1.5 Radioactive waste in Australia is classified in different ways that recognise that waste:

- Comes in different physical forms;
- Emits different types of radiation (alpha, beta or gamma radiation); and
- Will be radioactive for different periods of time.

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1 Australian Radiation Protection and Nuclear Safety Authority, Radioactive Waste Management fact sheet, [http://www.arpsa.gov.au/radiationProtection/factsheets/is\\_waste.cfm](http://www.arpsa.gov.au/radiationProtection/factsheets/is_waste.cfm) (accessed 10 December 2008)

1.6 The table below sets out the classification scheme used by the International Atomic Energy Agency (IAEA), and which is used to distinguish between the types of waste which the Australian government is considering for a waste disposal facility (low level waste, and short-lived intermediate level waste), and for a separate storage facility (long lived intermediate level waste).

### Summary of the IAEA Classification of Radioactive Waste<sup>2</sup>

Waste Type	Definition
Exempt waste	Activity levels at or below clearance levels
Low Level waste	Activity levels above clearance levels. 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	Waste that requires shielding, but needs little or no provision for heat dissipation, and contains low concentrations of long-lived radionuclides (less than 4000 Bq/g of alpha emitters). Radionuclides generally have a half-life of less than 30 years.
Long-lived Intermediate Level Waste	Waste that requires shielding, but needs little or no provision for heat dissipation. Concentrations of long-lived radionuclides (which generally have a half-life of greater than 30 years) exceed limitations for short lived waste.
High Level Waste	Waste which contains large concentrations of both short and long-lived radioactive nuclides, and is sufficiently radioactive to require both shielding and cooling. It generates more than two kilowatts per cubic metre of heat.

1.7 Australia's nuclear reactors have all been small research reactors. While their spent fuel rods when initially removed from the reactor core generate heat equivalent to that of high level waste, by the time they have been cooled and are ready for treatment as radioactive waste, they fall into the category of long lived intermediate level waste.

### Radioactive waste management in Australia

1.8 Radioactive waste management in Australia has a long history.<sup>3</sup> The process of identifying a site for storage or disposal of Australian radioactive waste began in

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2 Australian Radiation Protection and Nuclear Safety Authority, Radioactive Waste Management fact sheet, [http://www.arpsa.gov.au/radiationProtection/factsheets/is\\_waste.cfm](http://www.arpsa.gov.au/radiationProtection/factsheets/is_waste.cfm) (accessed 10 December 2008)

1978, when a meeting of Commonwealth, State and Territory Health Ministers, the State and Territory Ministers agreed to ask the Commonwealth to co-ordinate a national approach to the management of radioactive waste.<sup>4</sup>

1.9 In 1985, a 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'.<sup>5</sup> A national project to develop a site for disposal of low level and short-lived intermediate radioactive waste began in 1992. This process resulted in 2003 in the selection of a site for the facility in South Australia, known as Site 40a, which the Commonwealth acquired under the *Lands Acquisition Act 1989*.<sup>6</sup>

1.10 South Australia launched a legal challenge against this site choice, and on 24 June 2004, 'the Full Court of the Federal Court of Australia quashed the Commonwealth's land acquisition, ruling that the Commonwealth had misused the urgency provisions of the [Lands Acquisition Act] in acquiring Site 40a'.<sup>7</sup>

1.11 Following this decision, on 14 July 2004, the Prime Minister announced that the joint Commonwealth-State process would be abandoned. The government indicated that it 'will be examining sites on Commonwealth land, both onshore and off shore, for the establishment of a suitable facility' to take wastes that were the Commonwealth's responsibility, while leaving states and territories to manage their wastes.<sup>8</sup>

The Australian Government is committed to taking responsibility for the safe and secure disposal of its low level waste.

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3 Ian Holland and Matthew James, *Radioactive waste and spent nuclear fuel management in Australia*, Background Note, Department of the Parliamentary Library, January 2008, <http://www.aph.gov.au/library/pubs/bn/2007-08/RadioactiveWaste.htm> (accessed 1 December 2008).

4 'National dump to take all nuclear waste', *The Australian*, 28 June 1978.

5 Department of Primary Industries and Energy, *National Radioactive Waste Repository Site Selection Study, Phase 2, Report on Public Comment*, AGPS, Canberra, 1995.

6 Department of Resources, Energy and Tourism, 'The former National Radioactive Waste Repository and National Radioactive Waste Store projects', [http://www.ret.gov.au/resources/Documents/radioactive\\_waste/national\\_repository\\_and\\_store\\_history.pdf](http://www.ret.gov.au/resources/Documents/radioactive_waste/national_repository_and_store_history.pdf) (accessed 20 October 2008).

7 Department of Resources, Energy and Tourism, 'The former National Radioactive Waste Repository and National Radioactive Waste Store projects', [http://www.ret.gov.au/resources/Documents/radioactive\\_waste/national\\_repository\\_and\\_store\\_history.pdf](http://www.ret.gov.au/resources/Documents/radioactive_waste/national_repository_and_store_history.pdf) (accessed 21 October 2008); *State of South Australia v Honourable Peter Slipper MP* [2004] *FCAFC* 164.

8 The Hon. John Howard, 'Radioactive waste management', Media Release, 14 July 2004.

The states and territories now have a responsibility to do the same in relation to their waste and as a matter of priority.<sup>9</sup>

1.12 The Commonwealth then commenced a process for choosing a Commonwealth Radioactive Waste Management Facility, and specified that it would be on Commonwealth land. In July 2005, 'the Government announced that it would proceed with its waste management policy by investigating three Commonwealth sites in the Northern Territory'.<sup>10</sup> Two pieces of legislation were passed by Parliament supporting that process: the *Commonwealth Radioactive Waste Management Act 2005* and the *Commonwealth Radioactive Waste Management Legislation Amendment Act 2006*. The bill currently before the committee effectively seeks to repeal these pieces of legislation.

### **Commonwealth Radioactive Waste Management Act 2005**

1.13 The main legislation that is addressed by the current bill was introduced in 2005. It is the *Commonwealth Radioactive Waste Management Act 2005* (hereafter the Act). The objective of this legislation is:

To strengthen the Commonwealth's legal ability to develop and operate the proposed Commonwealth radioactive waste management facility in the Northern Territory. The Bill achieves this 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.<sup>11</sup>

1.14 The 2005 legislation was introduced in part 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.<sup>12</sup> At the time of the introduction of the 2005 legislation, the government responded to the Territory's action by commenting:

A number of existing State and Territory laws purport to prohibit or regulate the things the Commonwealth may do to establish and operate a

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9 The Hon John Howard, 'Radioactive waste management', *Media Release*, 14 July 2004.

10 The Hon. Dr Brendan Nelson, Minister for Education, Science and Training, 'Responsible management of radioactive waste in Australia', *Media Release*, 15 July 2005, MIN 1157/05, <http://www.dest.gov.au/Ministers/Media/Nelson/2005/07/n1157150705.asp> (retrieved 20 October 2008).

11 Commonwealth Radioactive Waste Management Bill 2005 *Bills Digest*.

12 *Nuclear Waste Transport, Storage and Disposal (Prohibition) Act 2004*, ss 6 and 7.

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facility and/or transport radioactive material. States and Territories jurisdictions may introduce further legislation purporting to prohibit, regulate or hinder the Commonwealth doing these things.

Notwithstanding any State or Territory legislation, the Bill provides the Commonwealth with the express authority to do anything necessary for, or incidental to, establishing or operating a Commonwealth facility at the selected site, and transporting radioactive waste to the facility.<sup>13</sup>

1.15 The 2005 legislation limited or suspended the operation of a range of Commonwealth legislation, including the *Aboriginal Land Rights Act 1976*, the *Aboriginal and Torres Strait Islander Heritage Act 1984*, and the *Native Title Act 1993*.

### **Commonwealth Radioactive Waste Management Legislation Amendment Act 2006**

1.16 The 2005 legislation envisaged the possibility that Indigenous traditional owners, through a Northern Territory Land Council, might wish to nominate a potential site or sites.<sup>14</sup> In 2006 the government introduced a bill, the Commonwealth Radioactive Waste Management Legislation Amendment Bill 2006, to facilitate such nominations. It did so by:

- creating a process whereby the land on which a facility was sited could be handed back to traditional owners;
- exempting the process of such nominations from the application of the *Administrative Decisions (Judicial Review) Act 1977*; and,
- in the case of nominations put forward by a Land Council, stating that a failure to follow full consultation processes would not invalidate a nomination.<sup>15</sup>

1.17 In May 2007, the Northern Land Council nominated a site for consideration under the Act, and on 27 September 2007, the Minister for Education, Science and Technology, the Hon Julie Bishop, accepted that nomination.<sup>16</sup> The site, 120 kilometres north of Tennant Creek on Muckaty Pastoral Lease in the Northern Territory, became the fourth site under consideration, together with the three identified by the Commonwealth in 2005.

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13 Commonwealth Radioactive Waste Management Bill 2005 *Explanatory Memorandum*.

14 *Commonwealth Radioactive Waste Management Act 2005*, s.3A..

15 Commonwealth Radioactive Waste Management Legislation Amendment Bill 2006 *Bills Digest*.

16 The Hon Julie Bishop, 'Approval of radioactive waste facility site nomination', Media Release, 27 September 2007, <http://www.dest.gov.au/Ministers/Media/Bishop/2007/09/B001270907.asp#> (accessed 20 October 2008).

1.18 The Northern Territory government remains opposed to the Commonwealth's current legislative regime,<sup>17</sup> and has stated:

The Northern Territory government maintains that the location of a [nuclear waste management facility] should be based upon independent and objective scientific advice on the most appropriate site or sites, wherever that site may be in Australia and not because of political expediency.<sup>18</sup>

1.19 The committee understands that all four sites remain under consideration by the Commonwealth. The Minister for Resources and Energy, the Hon. Martin Ferguson MP has, in correspondence to one of the traditional owners of Muckaty Pastoral Lease, indicated the government's position:

I am currently considering an appropriate way forward to achieve a comprehensive, national approach to radioactive waste management. No decisions on radioactive waste management will be taken by me or the Australian Government without appropriate consultation. In particular, no decision has been made regarding the use of land on Muckaty Station for a waste facility. I have noted the various views of the Muckaty traditional owner groups and will consider them all in developing the Government's radioactive waste management strategy.<sup>19</sup>

### **The Commonwealth's role**

1.20 The Commonwealth generates the majority of new radioactive waste, through the Australian Nuclear Science and Technology Organisation's (ANSTO) reactor operations at Lucas Heights. It is also responsible for much of the historical waste, particularly low level waste generated by past research activity of the CSIRO. All states and territories also have responsibility for smaller amounts of radioactive waste, including ongoing generation of small amounts of waste from nuclear medicine.

1.21 The Commonwealth's constitutional capacity to make decisions regarding radioactive waste within territories is based on the territories power.<sup>20</sup> Its power to deal with radioactive waste within state jurisdictions may be based in part on the external affairs power,<sup>21</sup> as Australia is a signatory to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, which entered into force in Australia on 3 November 2003.<sup>22</sup> This

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17 'Henderson urges PM to dump nuke waste law', *Northern Territory News*, 8 August 2008.

18 Northern Territory government, *Submission* 81, p. 3.

19 Correspondence to Ms Dianne Stokes, 22 Jul 2008, *Submission* 95, Attachment 11.

20 The Constitution, s. 122.

21 Angus Martyn, 'Commonwealth Radioactive Waste Management Bill 2005 – Bills Digest', *Bills Digest* No. 59 2005–06.

22 Australian Treaty Database, *Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management*, <http://www.austlii.edu.au/au/other/dfat/treaties/2003/21.html> (accessed 31 October 2008).

convention requires the contracting parties to take the appropriate steps to ensure that 'procedures are established and implemented for a proposed radioactive waste management facility', as well as setting out standards and objectives for radioactive waste management facilities.<sup>23</sup>

1.22 Martyn also notes that:

The 'implied nationhood' power could also be relevant to support legislation that essentially seeks to allow the Commonwealth to safely store waste generated by its agencies.<sup>24</sup>

1.23 The relevance of this power reflects the fact that the bulk of waste has been generated by Commonwealth agencies, particularly the CSIRO and the Australian Nuclear Science and Technology Organisation (ANSTO). However this does not extend to all the waste requiring management.

1.24 Some states and territories have passed legislation specifically to try and exclude a waste management site. These include the Northern Territory's *Nuclear Waste Transport, Storage and Disposal (Prohibition) Act 2004*,<sup>25</sup> Queensland's *Nuclear Facilities Prohibition Act 2007*,<sup>26</sup> South Australia's *Nuclear Waste Storage Facility (Prohibition) Act 2000*,<sup>27</sup> Victoria's *Nuclear Activities (Prohibitions) Act 1983*,<sup>28</sup> and Western Australia's *Nuclear Waste Storage (Prohibition) Act 1999*.<sup>29</sup> The New South Wales *Radiation Control Act 1990* prevents the operation of a waste facility without a licence granted by the state's Environment Protection Authority.<sup>30</sup> Tasmania's *Radiation Protection Act 2005* prevents the operation of a waste facility without a licence granted by the state's Director of Public Health.<sup>31</sup> The Australian

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23 *Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management*, Articles 13–17.

24 Angus Martyn, 'Commonwealth Radioactive Waste Management Bill 2005 – Bills Digest', *Bills Digest* No. 59 2005–06, p. 5.

25 *Nuclear Waste Transport, Storage and Disposal (Prohibition) Act 2004*, [http://www.austlii.edu.au/au/legis/nt/consol\\_act/nwtsada2004588/](http://www.austlii.edu.au/au/legis/nt/consol_act/nwtsada2004588/) (accessed 31 October 2008).

26 *Nuclear Facilities Prohibition Act 2007*, [http://www.austlii.edu.au/au/legis/qld/consol\\_act/nfpa2007295/](http://www.austlii.edu.au/au/legis/qld/consol_act/nfpa2007295/) (accessed 31 October 2008).

27 *Nuclear Waste Storage Facility (Prohibition) Act 2000*, [http://www.austlii.edu.au/au/legis/sa/consol\\_act/nwsfa2000430/](http://www.austlii.edu.au/au/legis/sa/consol_act/nwsfa2000430/) (accessed 31 October 2008).

28 *Nuclear Activities (Prohibitions) Act 1983*, s. 8, [http://www.austlii.edu.au/au/legis/vic/consol\\_act/naa1983337/](http://www.austlii.edu.au/au/legis/vic/consol_act/naa1983337/) (accessed 31 October 2008).

29 *Nuclear Waste Storage (Prohibition) Act 1999*, [http://www.austlii.edu.au/au/legis/wa/consol\\_act/nwsata1999555/](http://www.austlii.edu.au/au/legis/wa/consol_act/nwsata1999555/) (accessed 31 October 2008)

30 *Radiation Control Act 1990*, s. 6, [http://www.austlii.edu.au/au/legis/nsw/consol\\_act/rca1990193/](http://www.austlii.edu.au/au/legis/nsw/consol_act/rca1990193/) (accessed 31 October 2008)

31 *Radiation Protection Act 2005*, s. 20, [http://www.austlii.edu.au/au/legis/tas/consol\\_act/rpa2005228/](http://www.austlii.edu.au/au/legis/tas/consol_act/rpa2005228/) (accessed 31 October 2008).

Capital Territory appears to be the only jurisdiction lacking a legislative framework restricting or prohibiting the operation of such a facility.

1.25 The legislative and court actions in various jurisdictions have limited the Commonwealth's capacity to determine a location for a radioactive waste site. The fact that all the sites considered by the Commonwealth are in the Northern Territory reflects the Territory's limited capacity to oppose Commonwealth actions and legislation under the current Act.

**The bill currently before the committee: Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill 2008**

1.26 The bill currently before the committee contains just two items, to repeal the *Commonwealth Radioactive Waste Management Act 2005*; and a consequential repeal of a reference to that Act in the *Administrative Decisions (Judicial Review) Act 1977*.

1.27 The bill, if passed, would return the situation at law to that existing prior to the Commonwealth Radioactive Waste Management Act being passed in 2005, and would include:

- Reinstating certain procedural rights and rights of review of decisions that are removed by the 2005 legislation;
- Removing provisions for 'the acquisition or extinguishment of rights and interests related to land on which' a facility may be located;
- Returning the legal situation in the Northern Territory to that of any Commonwealth territory; and
- Reinstating the operation of certain state, territory and federal laws to the extent that they might regulate, hinder or prevent the examination of potential nuclear waste facility sites or the preparation of a selected site.<sup>32</sup>

The policy issues associated with the existing legislation are discussed in chapter two; an alternative policy approach is outlined in chapter three.