

THE FORMER NATIONAL RADIOACTIVE WASTE REPOSITORY AND NATIONAL RADIOACTIVE WASTE STORE PROJECTS

Note: publications mentioned in this document may be downloaded from www.radioactivewaste.gov.au.

THE NATIONAL REPOSITORY PROJECT

Overview

In 1992 the then Minister for Primary Industries and Energy, the Hon. Simon Crean MP, announced that the Australian Government, with the support of state and territory governments, was initiating a project to construct a near-surface repository for disposal of Australia's low level and short-lived intermediate level radioactive waste.

A site selection process was commenced that ultimately resulted in the selection of three sites near Woomera in South Australia, known as Site 40a, Site 45a and Site 52a.

The three sites were the subject of an environmental impact assessment process. On 7 May 2003, the then Minister for the Environment and Heritage, the Hon. David Kemp MP, approved the construction of the repository at either Site 40a or Site 45a.

Following Dr Kemp's decision, the then Minister for Science, the Hon. Peter McGauran MP, chose Site 40a as the site for the repository on 9 May 2003. Site 40a was chosen as it had security and access advantages compared to Site 45a. On 7 July 2003, the Commonwealth, using the urgency provisions of the *Lands Acquisition Act 1989* (LAA), compulsorily acquired Site 40a and its associated access route.

On 15 August 2003, the Department of Education, Science and Training submitted to the Australian Radiation Protection and Nuclear Safety Agency an application for a licence to site, construct and operate the national repository at Site 40a.

On 21 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 LAA in acquiring Site 40a.

Following this decision, the Prime Minister, the Hon. John Howard MP, announced on 14 July 2004 that the Australian Government was abandoning the national repository project. At the same time, Mr Howard announced that the Australian Government would construct a facility to manage all radioactive waste generated by Australian Government agencies.

The Site Selection Process

Phase 1 of the selection process comprised a three-month preliminary study focused on developing the methodology for assessing the whole of Australia to find areas suitable for a national radioactive waste repository.

The *Code of practice for the near-surface disposal of radioactive waste in Australia* was developed by the National Health and Medical Research Council (NHMRC) to ensure that the

waste, once buried, will remain isolated from the biosphere throughout the time that the waste has the potential to be hazardous. The NHMRC Code, now administered by the Australian Radiation Protection and Nuclear Safety Agency, includes thirteen site selection criteria relating to the safe disposal of radioactive waste. The criteria take into account a broad range of social, technical and environmental concerns, including:

- location of cities and towns;
- road and rail routes;
- population densities;
- earthquake and cyclone risk;
- rainfall;
- types of soils;
- land ownership;
- vegetation;
- land use; and
- water (both under the ground and in lakes, streams and rivers).

All regions of Australia were assessed against the selection criteria in order to identify potentially suitable sites for the repository. The methodology included the use of a computer-based system called ASSESS. Geographic information relevant to the radioactive waste disposal – for example, groundwater quality, geology, cyclone risk and transport systems - was assembled for all of Australia. ASSESS then compared this information to the site selection criteria set out in the NHMRC Code of Practice to show which regions were most suitable.

The results were made publicly available in the Phase 1 Discussion Paper *A Radioactive Waste Repository for Australia: Methods for Choosing the Right Site*, which was advertised nationally in October 1992 for public comment. The Australian Government produced *A Report on Public Comment*, which was released in August 1993.

Phase 2 of the site selection process was a one-year study that reapplied the site selection methodology developed in Phase 1, taking into consideration public comment on Phase 1. This study identified five broad regions within Australia which were considered likely to contain suitable sites for the repository:

- Everard (SA);
- Central-north SA;
- Olary (SA/NSW);
- Bloods Range (NT); and
- Tanami (NT).

In addition, two regions were included in the study following their nomination during public consultation: Mount Isa in Queensland and Maralinga in South Australia. The Jackson region of Western Australia was included for comparison purposes: a near-surface repository (part of the Mount Walton East intractable waste disposal facility operated by the West Australian Government) was already in operation in that area.

Each region contained a number of areas considered to be suitable for repository sites.

The results of Phase 2 were released in a discussion paper *A Radioactive Waste Repository for Australia: Site Selection Study - Phase 2*. The release of this discussion paper was advertised in national newspapers and in regional newspapers in the eight regions identified in July 1994. A response to comments received on this discussion paper was released in November 1995 in the *Report on Public Comment*.

Phase 3 included further comparisons of these eight regions. Following intense scrutiny, it became evident that only two regions contained a significant area that met all of the selection criteria, including low population density, low rainfall, a lack of intensive agriculture, and good road and rail access. These were central-north SA and Olary. The central-north region of SA was favoured over Olary as it contained the largest suitable area satisfying all the NHMRC criteria.

The results of the comparative regional study were released in the Phase 3 discussion paper *A Radioactive Waste Repository for Australia: Site Selection Study - Phase 3 Regional Assessment*. The release of this report was advertised nationally and within the central-north region in February 1998. The responses to comments received on that report were published in June 1999 in the *Report on Public Comment*.

In addition, the Phase 3 discussion paper and an information kit were sent to key groups representing a wide range of interests in the central-north region of South Australia: landholders, metropolitan and regional media, and individuals and groups who had expressed an interest in Phases 1 or 2 of the site selection study.

In June 1998, eighteen sites were identified for further study on the basis of available technical data, preliminary field investigations, public comment, and information provided by stakeholders, particularly pastoralists. This stage of the site selection process was known as the Phase 3 drilling investigations. Various aboriginal groups with interests in the region inspected these and other sites for heritage values. As a result of these consultations, new sites were proposed for investigation, and the location of some sites was moved. In all, over fifty sites were identified for possible investigation and were inspected for heritage values by Aboriginal groups. Eleven sites were investigated in Stage 1 drilling in 1999, and five sites were investigated in Stage 2 drilling in 2000. Of these five sites, three were chosen for further investigation in Stage 3 drilling.

The Stage 3 assessment concluded that all three sites – 40a, 45a and 52a – were highly suitable for the siting of the repository.

The national repository proposal was then submitted for environmental assessment under the *Environment Protection and Biodiversity Conservation Act 1999*. The Minister for the Environment and Heritage decided in early 2001 that the project should be the subject of a full environmental impact assessment.

The EIS Process

All Australian Government activities or proposals that may have a significant impact on the environment must be submitted to the Minister for the Environment and Heritage for approval under the *Environment Protection and Biodiversity Conservation Act 1999*.

In the case of the radioactive waste repository, this occurred on 24 January 2001. The Minister for the Environment and Heritage decided on 2 March 2001 that the project should be the subject of a full environmental impact assessment, in order to:

- examine all relevant aspects of the environment that may be affected by the repository;
- evaluate the significance of risks associated with it and two alternative sites in the area; and
- assess any potential impacts it may have on the environment.

Draft Guidelines for the environmental impact assessment were circulated through the community and public comment invited between April and May 2001. The comments received were considered by the Minister for the Environment and Heritage and used to modify the Draft Guidelines as necessary to produce the Final Guidelines

A draft Environmental Impact Statement (EIS) was prepared addressing the issues identified in the Final Guidelines. The draft EIS was released in July 2002 and public comment invited.

A supplement to the draft EIS, responding to public comment received on the draft EIS, was submitted to the Minister for the Environment and Heritage for his consideration in December 2002.

The Minister accepted the finalised report, which was released publicly in January 2003.

On 9 May 2003, the Minister announced his final decision on the repository proposal.

In considering whether to approve the proposal, the Minister took into account:

- environmental, economic and social matters;
- the principles of ecologically sustainable development;
- the views of relevant Australian Government Ministers; and
- any other relevant information about the environmental impacts of the action.

The Minister announced that the repository could be built at Site 40a or 45a, but must not be built at Site 52a.

The Minister attached a number of conditions to the use of the final site for the repository, relating to relating to the protection of threatened species, environmental management and monitoring, decommissioning, and audit.

THE NATIONAL STORE PROJECT

In 2001, the Australian Government announced that it would establish a safe, purpose-built facility on Commonwealth land for the storage of long-lived intermediate level radioactive waste produced by Australian Government agencies.

The National Store Advisory Committee, an independent, expert committee, was established to advise on the search for possible sites for the national store.

The discussion paper *Safe Storage of Radioactive Waste - The National Store Project: Methods for Choosing the Right Site* was released for public comment in July 2001.

The discussion paper provided background information on radioactive waste management in Australia. It described the issues to be considered and proposed a methodology to be used to assess individual potential sites for the national store.

A response to comments received on this discussion paper was released in April 2002 in the *Safe Storage of Radioactive Waste - The National Store Project: A report responding to public comment*.

Following the Prime Minister's announcement abandoning the national repository project, work on the national store project was also stopped as a new siting process was to begin for the combined low and intermediate level waste management facility.

NSAC

The membership of NSAC was:

- Dr Colin Chartres (Chair), CSIRO
- Mr Peter Burns, ARPANSA
- Dr Brad Cassels, Department of Human Services, VIC
- Mr Simon Critchley, Department of Health, QLD
- Dr Gerald Laurence, ADUCHEM Pty Ltd
- Dr Phil McFadden, Geoscience Australia
- Professor Ernst Warnecke, German Federal Office for Radiation Protection.

AUSTRALIAN GOVERNMENT DEPARTMENTS WITH RESPONSIBILITY FOR RADIOACTIVE WASTE MANAGEMENT

- 1992–1997: Department of Primary Industries and Energy
- 1997–2001: Department of Industry, Science and Resources
- 2001–2007 : Department of Education, Science and Training
- 2007–Present : Department of Resources, Education and Tourism

FURTHER INFORMATION

Mail: The Information Officer
Radioactive Waste Management Section
Department of Resources, Energy and Tourism
GPO Box 9839
CANBERRA ACT 2601

Telephone: 1800 682 704

Web: <http://www.radioactivewaste.gov.au/>