

The Politics of Nuclear Waste Disposal: Lessons from Australia

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Cover Photo: Barngarla Traditional Owners outside the Federal Court in Adelaide, March 2023
(Credit: Jim Green)



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Abstract

Australia has a long and complex engagement with nuclear waste issues. With the failure to remediate atomic bomb test sites, and repeated failures to establish a national nuclear waste repository, the approaches of successive Australian governments to radioactive waste management deserve close scrutiny. A recurring theme is the violation of the rights of Aboriginal First Nations Peoples and their successful efforts to resist the imposition of nuclear waste facilities on their traditional lands through effective community campaigning and legal challenges. We argue for the incorporation of the UN Declaration on the Rights of Indigenous Peoples into Australian law, and amendments to the National Radioactive Waste Management Act to remove clauses which weaken or override Indigenous cultural heritage protections and land rights. In addition, there is a need for studies, clean-up and monitoring of all British nuclear weapons test sites in Australia in line with the positive obligations in the Treaty on the Prohibition of Nuclear Weapons (TPNW). In light of the failure to manage existing radioactive waste management challenges, it must be questioned whether the Australian government can successfully manage the challenges of high-level nuclear waste management posed by the AUKUS defence pact and the plan to purchase and build nuclear-powered submarines.

Introduction

Radioactive wastes are generated across the nuclear fuel cycle in a myriad of different forms, including tailing waste at uranium mines, depleted uranium waste at uranium enrichment plants, irradiated nuclear fuel from power reactors, and waste streams from reprocessing.¹ Nuclear weapons testing is another significant source of radioactive wastes. Other sources include the use of nuclear research reactors for scientific, industrial, and medical purposes.

¹ The authors would like to acknowledge the assistance of Dr. Cath Keaney, Dave Sweeney, Karina Lester and David Noonan in reviewing this article.

Globally, there have been many challenges with the storage and disposal of nuclear waste. No country has an operating repository for high-level nuclear waste. The only operating deep underground repository for intermediate-level waste, the Waste Isolation Pilot Plant in the United States, was shut for three years following a February 2014 chemical explosion, the result of incompetent management, cost-cutting, and regulatory failures.

In addition to the technical challenges of isolating radioactive materials for periods of centuries or millennia, radioactive waste management has posed profound social challenges. Often radioactive waste is imposed on unwilling communities, such as that created by nuclear weapons testing in Pacific countries under colonial control. The risks and harms of waste impact disproportionately on Indigenous Peoples and marginalised communities. In Australia, such legacy issues continue, many decades after the events themselves.

This paper covers approaches to radioactive waste management in Australia with an emphasis on attempts to clean up atomic bomb test sites as well as attempts to establish a national radioactive waste repository and storage site.²

We first consider historical wastes associated with atomic bomb testing (and associated nuclear experiments) carried out in the 1950s and 1960s in Western Australia (Montebello Islands) and South Australia (Emu Field and Maralinga). Efforts to remediate these sites have been half-hearted, scandal-plagued and ineffective. We then consider more recent contests to establish a national radioactive waste facility. Since the late-1990s, the Commonwealth (federal) government has tried and failed to establish a national radioactive waste repository. Attempts to accept international waste have also been unsuccessful.

In the wake of the 2021 announcement that Australia would procure nuclear-powered submarines, there has been further promotion of an international nuclear waste import industry for South Australia (SA). The nuclear submarine program will generate streams of intermediate- and high-level nuclear waste requiring deep geological disposal, in addition to low-level radioactive waste.

There is little to cheer about in Australia's history of radioactive waste management. Australia has demonstrated repeatedly how *not* to manage radioactive waste challenges. Sweeping reforms to reverse the long-standing pattern of failures in government policies are needed. A cooperative, inclusive approach to radioactive waste management is likely to be more effective than the failed authoritarian approaches of successive federal governments. That is a lesson being learned around the world.

² Radioactive waste issues at uranium mines in Australia, including the voluminous radioactive tailings wastes generated at underground and open-pit mines, and the pollution of groundwater at in-situ leach mines, are not covered in this paper.

British Atomic Bomb Tests

The Treaty on the Prohibition of Nuclear Weapons (TPNW), which came into force in January 2021, comprehensively bans nuclear weapons.³ At the time of writing, 93 nations have signed the TPNW, and it has 70 states parties. Articles 6 and 7 within the TPNW create positive obligations for victim assistance and environmental remediation. States Parties are called on to offer assistance to those States impacted by nuclear weapons use or testing. Australia has not yet signed the TPNW, but the 2023 Australian Labor Party (ALP) National Conference reaffirmed a long-standing commitment for the ALP to sign and ratify the treaty.



Maralinga army veteran Avon Hudson at the Taranaki “minor trials” site (Credit: Jessie Boylan)

The impetus created by the TPNW for recognition and repair of past harms from nuclear weapons activities has seen a new level of engagement in examining the histories of nuclear testing programs in Australia and throughout the Pacific region. In all, 315 nuclear weapons tests were conducted by the United States, Britain and France over a fifty-year period. The legacies of contamination, waste, and intergenerational health concerns are the focus of scientific, medical, and political inquiry and advocacy from affected community members and advocates around the world.

³ “Treaty on the Prohibition on Nuclear Weapons,” United Nations, accessed November 8, 2023, <https://disarmament.unoda.org/wmd/nuclear/tpnw>

In Australia, the British government carried out 12 atomic bomb tests from 1952 to 1957; three at Montebello Islands off the coast of Western Australia, two at Emu Field and seven at Maralinga in SA.⁴ The total yield of the bombs detonated across the Montebello Islands, Emu Field and Maralinga testing grounds over the five years is estimated at 181 kilotons.⁵ The contamination from the weapons development trials (or “minor trials”) run by the British between 1953-1963 requires greater scrutiny and monitoring,⁶ with recent studies confirming ongoing issues with high level contamination.⁷ These weapons development trials were designed to investigate the performance of components of a nuclear device. Almost all of them involved radioactive and toxic materials in conjunction with conventional high explosives.⁸ The British carried out five series of these trials at Emu Field and Maralinga, dispersing 24 kgs of plutonium and 16 tonnes of uranium along with other radioactive and toxic materials.⁹

The adverse impacts of the British atomic testing program in Australia were most acutely felt by First Nations people. Permission was not sought for the tests from affected First Nations groups such as the Pitjantjatjara, Tjarutja and Kokatha in SA. Nor were the Aboriginal communities of Western Australia taken into account in the first tests at Montebello.¹⁰ The use of atomic weapons contaminated large tracts of traditional land and saw traumatic forced relocation. The damage was radiological, psychological, environmental, and cultural. The 1984–85 Royal Commission into the British Nuclear Tests in Australia (the McClelland Report) found that regard for the safety of Aboriginal people during the weapons tests was characterised by “ignorance, incompetence and cynicism.”¹¹

4 Dimity Hawkins, “Addressing Humanitarian and Environmental Harm from Nuclear Weapons: Monte Bello, Emu Field and Maralinga Test Sites,” *Pace University, International Disarmament Institute*, October 2018, accessed November 8, 2023, <https://disarmament.blogs.pace.edu/files/2018/10/Australia-PosObs-Country-Report-7-1-10f9q33.pdf>

5 “British Nuclear Weapons Testing in Australia,” Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), accessed November 9, 2023, <https://www.arpansa.gov.au/understanding-radiation/sources-radiation/more-radiation-sources/british-nuclear-weapons-testing>

6 Tilman Ruff, “Health and Environmental Impacts of British Nuclear Test Explosions in Australia,” *Institute for Energy and Environmental Research (IEER)*, June 2022, accessed November 13, 2023, <https://ieer.org/wp/wp-content/uploads/2022/06/British-testing-in-Australia-for-ICAN-by-Tilman-Ruff-June-2022.pdf>

7 Megan Cook, Barbara Etschmann, Rahul Ram, Konstantin Ignatyev, Gediminas Gervinskas, Steven D. Conradson, Susan Cumberland, Vanessa N. L. Wong, and Joël Brugger, “The Nature of Pu-Bearing Particles from the Maralinga Nuclear Testing Site, Australia,” *Scientific Reports Vol. 11 (1), no. 10698* (2021), accessed November 13, 2023, <https://doi.org/10.1038/s41598-021-89757-5>

8 “Rehabilitation of Former Nuclear Test Sites at Emu and Maralinga (Australia) 2003,” Report by the Maralinga Rehabilitation Technical Advisory Committee, Department of Education, Science and Training (Cwth), accessed November 13, 2023, <https://www.industry.gov.au/data-and-publications/rehabilitation-of-former-nuclear-test-sites-at-emu-and-maralinga-australia>

9 Ibid.

10 James R. McClelland, Jill Fitch, and William J. A. Jonas, *The Report of the Royal Commission into British Nuclear Tests in Australia Vol 1*, (Canberra: Australian Government Publishing Service, 1985), 122.

11 McClelland, *The Report of the Royal Commission*, “Conclusions and Recommendations,” <https://nuclear.foe.org.au/wp-content/uploads/Royal-Commission-conclusionsrecs.pdf>

There were early, partial, and poorly executed clean-ups at some sites at the Maralinga testing ground, but the inadequate nature of these clean-ups was exposed in the 1985 Royal Commission into British Nuclear Testing in Australia.¹² In the late-1990s, a fourth clean-up of the Maralinga test site began – the first three having failed to significantly reduce radiological risks. Most of the radioactive contamination resulted not from the atomic bomb tests but from “minor trials” carried out at Emu Field in 1953 and at Maralinga between 1955 and 1963.

The fourth clean-up was a failure. Nuclear engineer Alan Parkinson was the federal government’s senior representative on the Maralinga clean-up project but he became the project’s fiercest critic and wrote a book about its many failings.¹³ Parkinson said of the shoddy clean-up, “What was done at Maralinga was a cheap and nasty solution that wouldn’t be adopted on white-fellas land.”¹⁴

Dr. Geoff Williams, an officer with the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), said that the Maralinga clean-up was beset by a “host of indiscretions, short-cuts and cover-ups.”¹⁵ US scientist Dale Timmons, who was involved in the clean-up, said the government’s technical report on the clean-up was littered with “gross misinformation.”¹⁶ Australian nuclear physicist Professor Peter Johnston noted that there were “very large expenditures and significant hazards resulting from the deficient management of the project.”¹⁷

Professor Johnston (and others) noted in a conference paper that Traditional Owners¹⁸ were excluded from any meaningful input into decision making concerning the clean-up.¹⁹ The paper notes that Traditional Owners were represented on a consultative committee but key decisions – such as abandoning vitrification of plutonium-contaminated waste in favour of shallow burial in unlined trenches – were taken without consultation with the consultative

12 Ibid., 527–561.

13 Alan Parkinson, *Maralinga: Australia’s Nuclear Waste Cover-Up* (Sydney: ABC Books, 2007).

14 Alan Parkinson, ABC Adelaide Radio, 5 August 2002.

15 ABC Background Briefing, “Maralinga: The Fall Out Continues,” April 16, 2000, accessed October 21, 2023, <https://www.abc.net.au/listen/programs/backgroundbriefing/maralinga-the-fall-out-continues/3466242>

16 Dale M. Timmons, “Comments on MARTAC Report,” April 3, 2003, accessed October 21, 2023, <http://web.archive.org/web/20091022015955/www.geocities.com/jimgreen3/martac.html>

17 Peter Johnston, submission to ARPANSA inquiry into proposed national radioactive waste facility in SA, 2004.

18 Traditional Owners refer to those Indigenous Peoples identified to hold a claim to certain areas as their traditional homelands. First Nations Peoples is a more general term used to describe Aboriginal Peoples in Australia (often used in place of ‘Indigenous’ or ‘Aboriginal’, though there is a preference for different terms in different communities).

19 P.N. Johnston, A.C. Collett, and T.J. Gara, “Aboriginal Participation and Concerns Throughout the Rehabilitation of Maralinga,” presentation to the Third International Symposium on the Protection of the Environment from Ionising Radiation, Darwin, July 22–26, 2002, 349–56, accessed Oct. 21, 2023, http://www-pub.iaea.org/MTCD/publications/PDF/CSP-17_web.pdf

committee or any separate discussions with Traditional Owners.

Federal government minister Senator Nick Minchin said, in a 2000 media release, that the Maralinga Tjarutja Traditional Owners, “have agreed that deep burial of plutonium is a safe way of handling this waste.” However, the burial of plutonium-contaminated waste was not deep and the Maralinga Tjarutja Traditional Owners did not agree to shallow burial of long-lived waste in unlined trenches – in fact, they wrote to the minister explicitly dissociating themselves from the decision.²⁰

After the clean-up was finished, the Senate passed a resolution in August 2002 calling on the government to exhume the radioactive debris at Maralinga, sort it and use a safer, more long-lasting method of storing this material.²¹ However, subsequent efforts to improve the situation at Maralinga have been piecemeal and reactive. In 2011, confidential federal government files, released under freedom of information laws, revealed that a survey found that 19 of the 85 contaminated waste pits had been subject to erosion or subsidence, with eight requiring “major work”; that the government had rejected a request by the Maralinga Tjarutja Aboriginal community for a site near the Maralinga village to be cleared of high levels of toxic uranium contamination; and that a large radioactive waste repository at Maralinga required significant remediation work.²²

In 2021, scientific research revealed further concerns about plutonium contamination at Maralinga including leaching into groundwater, uptake by plants, and potential inhalation or consumption via the food chain.²³ Lead researcher Dr. Megan Cook said, “We now have a sustained and prolonged release of plutonium into the ecosystem.”²⁴

The Emu Field site is also in need of remediation, with a legacy of radioactive pollution arising from atomic bomb tests and minor trials.²⁵

Karina Lester, a Yankunytjatjara Anangu woman from the Anangu Pitjantjatjara

20 “Senate Estimates,” Parliament of Australia, May 3, 2000, accessed October 21, 2023, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id:%22committees/estimate/977/0011%22>

21 “Environment: Maralinga Test Site,” Senate Resolution, Parliament of Australia webpage, August 21, 2002, p. 3480, accessed 21 Oct. 2016, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id:%22chamber/hansards/2002-08-21/0087%22;src1=sm1>

22 Philip Dorling, “Maralinga Sites Need More Repair Work, Files Show,” *The Age*, November 12, 2011, accessed November 13, 2023, <https://www.theage.com.au/national/maralinga-sites-need-more-repair-work-files-show-20111111-1nbpp.html>

23 Cook, et al. “The Nature of Pu-Bearing Particles,” op.cit.

24 Gillian Aeria and Evelyn Leckie, “Fallout from Nuclear Tests at Maralinga Worse than Previously Thought,” May 22, 2021, <https://www.abc.net.au/news/2021-05-22/maralinga-nuclear-particles-more-reactive/100157478>

25 Elizabeth Tynan, *The Secret of Emu Field: Britain’s Forgotten Atomic Tests in Australia*, (Sydney: UNSW Press, 2022) <https://unsw.press/books/the-secret-of-emu-field/> See also, David Noonan, “Call to Clean-up Emu Field Atomic Test Site 70 years after the Black Mist,” September 1, 2023, <https://nuclear.foe.org.au/wp-content/uploads/Noonan-Call-to-clean-up-the-Emu-Field-Atomic-Test-Site-2023.pdf>; Hawkins, “Ongoing Humanitarian,” op.cit.

Yankunytjatjara Lands (APY Lands) in the far North West of SA, advocates for recognition and repair of the Emu Field site. Karina follows on with the work of her grandmother, Mrs Eileen Kampakuta Brown, and father Yami Lester who, along with other family members, were impacted by two British atmospheric nuclear weapons tests in 1953. A statement endorsed by 130 civil society groups in Australia and the Pacific to mark the 70th anniversary of the Emu Field nuclear tests in October 2023 noted, “No consent was sought or given by any Anangu (Aboriginal people) in the region for the use of their lands.” Karina Lester stated that, “After marking the 70th anniversary of the first mainland nuclear test conducted at Emu Field, there has still been no clean up. Now is the time to have those discussions after 70 years of no action.”²⁶

Further research into residual radioactive contamination at the Montebello Islands is also necessary before decisions on remediation can be made. Recent research found contamination from the nuclear tests on land, within the seabed and within organisms.²⁷ Due to residual contamination, visitors are encouraged to limit their trips to an hour a day.

The lessons from Australia with nuclear waste from weapons testing resonate in the Pacific. Researcher Nic Maclellan notes that,

“The atomic tests in Australia were a crucial prequel to the development of the British hydrogen bomb, codenamed Operation Grapple, when the UK Government decided to follow the United States and the Soviet Union in the development of more powerful thermonuclear weapons.”²⁸

At nuclear test sites in the Marshall Islands, Kiribati and Ma’ohi Nui (French Polynesia), nuclear contamination left by US, British and French tests are continuing to challenge small island governments. In the Republic of the Marshall Islands (RMI), waste from the testing of 67 atmospheric nuclear tests from 1946 to 1958 by the United States remains a problem at Runit Dome and surrounding areas.²⁹ The RMI National Nuclear Commission developed a strategy around nuclear testing legacies, noting that the “low-level nuclear waste facility on Runit Island at Enewetak Atoll is another constant reminder of the US

26 ICAN Australia, “Civil Society Statement: The Black Mist and the Ban,” October 15, 2023, https://icanw.org.au/black_mist_ban/

27 ECU Newsroom, “Study Finds Radiation Risk at Historic WA Nuclear Test Site 70 Years on,” *ECU University*, October 3, 2022, accessed November 11, 2023, <https://www.ecu.edu.au/newsroom/articles/research/study-finds-radiation-risk-at-historic-wa-nuclear-test-site-70-years-on>

28 Nic Maclellan “Black Mist Across the Desert,” *Arena*, October 15, 2023, <https://arena.org.au/black-mist-across-the-desert/>

29 Arjun Makhijani, “Summary of Health and Environmental Impacts of US Nuclear Testing in the Marshall Islands,” IEER paper, June 2022, <https://ieer.org/wp/wp-content/uploads/2022/06/US-tests-in-the-Marshall-Islands-for-ICAN-by-Arjun-Makhijani-June-2022.pdf>

Government's unfinished business in dealing with the contamination left behind from their nuclear weapons testing program."³⁰ Similar issues with radioactive waste continue to concern people in Kiribati, where radiological waste and contaminated equipment and vehicles were reported to be left abandoned on coral reefs and islands when the testing programs were shut down.³¹ With other transboundary threats from climate change, and rising oceans, concerns are growing within the international community for the security of wastes left in these island states.³²

A "Nuclear Disarmament Statement" adopted into policy at the Australian Labor Party National Conference on August 18, 2023 reaffirms the Labor government's policy commitment to sign the TPNW and acknowledges "the deep and ongoing consequences of nuclear testing in Australia, which have been borne disproportionately by our First Nations peoples".³³ The Labor statement also commits the government to consider further assistance for affected communities and further environmental remediation in relation to the British atomic tests consistent with Article 6 of the TPNW.³⁴

Failed Efforts to Establish a National Radioactive Waste Facility

Australia has never operated nuclear power reactors or built nuclear weapons. Thus, most of the radioactive waste generated in Australia has arisen from three sources: the British nuclear weapons testing program (and associated weapons development trials), uranium mining and processing, and the operation of nuclear research reactors. The one currently operating research reactor, called "OPAL" (Open Pool Australian Lightwater), is used for scientific research, industrial applications, and radiopharmaceutical production. It is operated by the Australian

Nuclear Science Technology Organisation (ANSTO) at Lucas Heights, south of Sydney.

30 "Nuclear Justice for the Marshall Islands: A Strategy for Coordinated Action FY2020-FY2023," The Marshall Islands National Nuclear Commission, 2020: 19.

31 Becky Alexis-Martin, Matthew Breay Bolton, Dimity Hawkins, Sydney Tisch, and Talei Luscia Mangioni, "Addressing the Humanitarian and Environmental Consequences of Atmospheric Nuclear Weapon Tests: A Case Study of UK and US Test Programs at Kiritimati (Christmas) and Malden Islands, Republic of Kiribati," *Global Policy*, Volume 12, Issue 1, (February 2021), <https://onlinelibrary.wiley.com/doi/full/10.1111/1758-5899.12913>

32 "Preliminary Independent Review of Existing Studies & Conclusions Regarding the Scientific Assessment of the Nuclear Contamination in the Pacific," Pacific Islands Forum, PIF Secretariat website, February 10, 2023.

33 David Noonan, "Call to clean-up Emu Field Atomic Test Site"; See also, "Labor Policy and the Treaty on the Prohibition of Nuclear Weapons," ICAN Australia webpage, accessed 8 November 2023, icanw.org.au/laborpolicy.

34 "Treaty on the Prohibition of Nuclear Weapons," United Nations, accessed December 8, 2023, <https://disarmament.unoda.org/wmd/nuclear/tpnw/>

Radioactive waste is stored at around 100 sites around Australia according to the federal government.³⁵ Most states and territories have interim storage facilities managed by state/territory governments (such as the Mt Walton East Intractable Waste Disposal Facility in Western Australia and the storage facility at Esk in Queensland).³⁶ ANSTO is responsible for an overwhelming majority (over 90 percent) of waste destined for a national radioactive waste facility, and ANSTO manages its waste at Lucas Heights.³⁷ By far the largest contributor to the radioactivity of the intermediate-level waste (ILW) is irradiated (spent) fuel from nuclear research reactors operated at Lucas Heights. Irradiated fuel is sent to France for reprocessing, with the long-lived intermediate-level reprocessing waste returned to Australia.

Since the 1980s, federal and state/territory governments have considered options to establish radioactive waste facilities. In 1985, some state/territory governments commenced studies to identify potentially suitable sites in their jurisdictions. Since the 1990s, federal efforts to establish a national waste facility have taken centre stage.

In some configurations, an above-ground store for ILW would be co-located with the repository for low-level waste (LLW), pending the establishment of a deep geological repository suitable for ILW disposal. If built, national waste management facilities (stores and/or repositories) would accept waste generated by Commonwealth agencies (in particular ANSTO) and also waste currently under the jurisdiction of Australia's states and territories. National waste management facilities would be regulated by the Commonwealth nuclear regulator, the Australian Radiation Protection and Nuclear Safety Agency.

However, attempts by successive federal governments to establish a national radioactive waste management facility have failed due to opposition from First Nations people and the broader community.

35 Madeleine King, "Statement on the National Radioactive Waste Management Facility," speech to Parliament, industry.gov.au webpage, August 10, 2023, <https://www.minister.industry.gov.au/ministers/king/media-releases/statement-national-radioactive-waste-management-facility/>

36 "Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management," National Report of the Commonwealth of Australia, October 23, 2017, https://www.arpsa.gov.au/sites/default/files/jc2017_october_2017.pdf

37 "National Inventory of Radioactive Waste," Australian Radioactive Waste Agency, October 3, 2022, accessed November 13, 2023, <https://www.industry.gov.au/sites/default/files/2022-09/australias-national-inventory-of-radioactive-waste-2021.pdf>

Woomera

Under the conservative Howard Coalition government, an attempt was made to establish a national radioactive waste facility in the Woomera region of SA. The intention was to build a national repository for LLW and a store for ILW near the rocket and missile testing range at Woomera. First proposed in 1998, the plan was abandoned in 2004 after a historic campaign of opposition led by senior Aboriginal women Elders and supported by environmental, public health, and human rights groups. Leading the battle against the proposed repository were the Kupa Piti Kungka Tjuta, a council of senior Aboriginal women from northern SA.³⁸ Many of the Kungkas personally suffered the impacts of the British nuclear bomb tests at Maralinga and Emu Field in the 1950s, and these harms helped inform their ardent opposition.

Initially, First Nations groups were coerced into signing “Heritage Clearance Agreements,” consenting to test drilling of shortlisted sites. The federal government made it clear that if consent was not granted, drilling would take place anyway.³⁹ First Nations groups were put in an invidious position. They could attempt to protect specific cultural sites by engaging with the federal government and signing agreements, at the risk of having that engagement being misrepresented as consent for the waste facility; or they could refuse to engage in the process, thereby limiting their capacity to protect cultural sites.⁴⁰ First Nations groups did participate in Heritage Clearance Agreements and, as feared, that participation was repeatedly misrepresented by the federal government as amounting to Aboriginal consent for the waste facility.

In 2003, the federal government used the *Lands Acquisition Act 1989* to seize land for the repository. Aboriginal Native Title rights and interests were extinguished with the stroke of a pen.⁴¹ This took place with no forewarning and no consultation with First Nations people.

The Kungkas continued to implore the federal government to abandon the proposed repository, and after six years, the government did just that. In the lead-up to the 2004 federal election, with the issue causing the government political damage, and following a Federal Court ruling that the government

38 “Irati Wanti,” Irati Wanti webpage, accessed November 13, 2023, <http://web.archive.org/web/20080718193150/http://www.iratiwanti.org/home.php3>; See also, “Nuclear Waste—Domestic Australian Issues,” Friends of the Earth, accessed November 13, 2023, <https://nuclear.foe.org.au/waste/#sa1>

39 Dr. Roger Thomas, ARPANSA Inquiry Public Hearing, February 25, 2004, accessed November 13, 2023, <https://nuclear.foe.org.au/wp-content/uploads/ARPANSA-forum-25-26-Feb-2004.pdf>

40 Ibid.

41 Peter McGauran (Federal Science Minister), “National Repository One Step Closer,” Media Release, July 7, 2003, http://web.archive.org/web/20040311234450/http://www.dest.gov.au/ministers/mcg/jul03/mr_070703a.htm

had misused urgency provisions in the *Lands Acquisition Act*, the government decided to abandon its plan to build a national radioactive waste facility in SA.⁴²

The Kungkas wrote in an open letter: “People said that you can’t win against the Government. Just a few women. We just kept talking and telling them to get their ears out of their pockets and listen. We never said we were going to give up. Government has big money to buy their way out but we never gave up.”⁴³

The government then announced that it was considering plans to find an off-shore or Pacific Island nation willing to accept Australian radioactive waste for storage and disposal.⁴⁴ That plan was quickly superseded after the election when the government announced, in 2005, that numerous sites in the Northern Territory were under investigation.

Radioactive Waste Management Acts

In December 2005, the federal government established the Commonwealth Radioactive Waste Management Act (CRWMA).⁴⁵ The new Act was heavy-handed, ruling out the application of state and territory environmental and heritage laws to the siting, development, and operation of a national radioactive waste facility. It also ruled out or limited the application of a number of federal laws, while limiting options to contest or appeal Ministerial decisions.⁴⁶ “No person is entitled to procedural fairness in relation to a Minister’s approval,” section 3D of the CRWMA states.

The CRWMA included numerous clauses designed to disempower and dispossess First Nations people by restricting or overriding federal and state/territory land rights laws and heritage protection laws. It allowed for the imposition of a waste facility without first consulting with affected Aboriginal First Nations or securing their consent.

42 Finn Branson and J.J. Finkelstein, “Compulsory Acquisition – Radioactive Waste,” June 24, 2004, accessed November 13, 2023, www.nntt.gov.au/News-and-Publications/hotspots/Documents/Hot%20Spots%2010/South%20Australia%20v%20Honourable%20Peter%20Slipper.pdf; See also, Angela Morsley, “Protecting Authority, Burying Dissent: An Analysis of Australian Nuclear Waste Law,” *Macquarie Law Journal* 4 (2017): 55-81, <http://classic.austlii.edu.au/au/journals/MqLawJl/2017/4.html>

43 Kupa Piti Kungka Tjuta, “We are Winners Because of What’s in Our Hearts, Not What’s on Paper,” August, 2004, accessed October 21, 2016, <http://web.archive.org/web/20080720065153/http://www.iratiwanti.org/iratiwanti.php3?page=news&id=244&start=0&year=2004>

44 Matthew James and Ann Rann, “Radioactive Waste and Spent Nuclear Fuel Management in Australia,” July 21, 2011, Background Note, Science, Technology, Environment and Resources Section, Department of Parliamentary Services, Parliament of Australia webpage, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id:%22library/prspub/PU1T6%22>

45 “Commonwealth Radioactive Waste Management Act 2005,” Australian Government webpage, <https://www.legislation.gov.au/Details/C2006C00710>

46 Morsley, “Protecting Authority, Burying Dissent,” op.cit.

This was an unfortunate turning point. In the aftermath of the failed attempt to establish a waste facility in SA, the government could have initiated a new process which sought to address radioactive waste management challenges in a framework which acknowledged and respected the rights and interests of Australia's First Nations and the broader community. Instead, the government chose to do the opposite, thereby setting a pathway towards a divisive and non-productive policy approach.

The CRWMA was strongly opposed by the opposition Labor Party. They formed government in the 2007 elections, but it was not until 2012, that the CRWMA was replaced with the National Radioactive Waste Management Act (NRWMA).⁴⁷

Unfortunately, the NRWMA was (and remains) almost as draconian as the CRWMA. Angela Morsley, writing in the *Macquarie Law Journal* in 2017, notes that the NRWMA “deviates little from the path laid by its predecessor, with the federal Minister retaining ‘absolute discretion’ to approve a nomination and select a site” and that this comes “at the expense of matters important to the public interest, and with the consequence that the siting process is inherently compromised.” It is described as a “regime tightly shut against public participation, such that there remains little opportunity for expressions of local dissent and the testing of regionally important interests that conflict with those endorsed by the Commonwealth.”⁴⁸

As with the CRWMA, the NRWMA still permits the imposition of radioactive waste facilities, even if affected First Nations people were not consulted and did not provide informed consent (to be precise, the nomination of a site is not invalidated by a failure to consult or secure consent). The NRWMA includes clauses which nullify state/territory laws that protect the archaeological or heritage values of land or objects, including those which relate to Indigenous traditions. The Act curtails the application of Commonwealth laws, including the Aboriginal and Torres Strait Islander Heritage Protection Act 1984 and the Native Title Act 1993 in the important site-selection stage. The Native Title Act 1993 is expressly overridden in relation to land acquisition for a radioactive waste facility.

Northern Territory

Under these Acts, between 2005 to 2014, successive governments attempted to establish a national radioactive waste management facility in the Northern Territory. Initially, three sites on Defence Department land were considered.

⁴⁷ “National Radioactive Waste Management Act 2012,” Australian Government webpage, <https://www.legislation.gov.au/Details/C2012A00029>

⁴⁸ Morsley, “Protecting Authority, Burying Dissent,” op.cit.

However, in 2007, the Northern Land Council nominated Muckaty Station, 110 km north of Tennant Creek in the Northern Territory, for consideration as the site for a waste facility. The Muckaty site then became the sole focus of government efforts.⁴⁹

The CRWMA allowed, and the NRWMA allows, the imposition of a radioactive waste facility despite the objection of First Nations people, with one exception. If land is nominated by an Aboriginal Land Council, informed consent from traditional owners is required and is to be given (or withheld) in accordance with traditional decision-making process, or else under a process agreed to and adopted by Traditional Owners. Morsley argues that this is “international best practice for the location of hazardous waste repositories on indigenous land.”⁵⁰

However, the strong consultation and consent provisions of the Act applied only to land nominated by an Aboriginal Land Council. And the process was open to abuse, as would soon become clear.

While a small number of Aboriginal Traditional Owners supported the proposed radioactive waste facility on Muckaty Station, a large majority were opposed. Some Muckaty Traditional Owners initiated legal action in the Federal Court in 2011, challenging the nomination of the site by the Northern Land Council. The Federal Court trial finally began in June 2014. After two weeks of evidence, the Northern Land Council agreed to withdraw the nomination of the Muckaty site for a radioactive waste facility, thus bringing the legal action to a close and ending the proposed Muckaty waste facility.⁵¹

Morsley notes that “the Federal Court heard that the NLC [Northern Land Council] had relied on the consent of only one group of Traditional Owners, thus ignoring the complex network of songlines that warranted consideration of other groups’ interests in the land on which the NRWMA [National Radioactive Waste Management Facility] was proposed.”⁵²

Site nomination process

Following the decision not to proceed with the Muckaty site, the federal government announced in March 2015 that landowners around Australia could

49 James and Rann, “Radioactive Waste and Spent Nuclear Fuel Management in Australia,” op.cit.

50 Morsley, “Protecting Authority, Burying Dissent,” op.cit.

51 Elizabeth O’Shea, “Muckaty Nuclear Dump Defeat is a Huge Victory for Aboriginal Australia,” *The Guardian*, June 19, 2014, <http://www.theguardian.com/commentisfree/2014/jun/19/muckaty-nuclear-dump-defeat-is-a-huge-victory-for-aboriginal-australia>; See also, Friends of the Earth <https://nuclear.foe.org.au/waste/#nt>

52 Morsley, “Protecting Authority, Burying Dissent,” op.cit.

nominate potential sites for a national radioactive waste facility under section 9 of the NRWMA.⁵³



Muckaty Traditional Owners and allies celebrating the successful struggle to stop a radioactive waste dump at Muckaty Station (Credit: Nat Wasley)

In some respects, this “bottom-up” nomination process could have been a welcome shift from the previous failed top-down, government-dominated processes. But the nomination process would soon prove to be problematic. A key problem concerned the minimalist consultation requirements imposed by the legislation. Morsley writes: “Consultation may be provided for under the NRWMA, but there is no evidence to suggest that it has anything other than a tokenistic place within a legal framework that positions site selection as an almost inevitable outcome of nomination, supported by Ministerial fiat, rather than broadly sought public consent.”⁵⁴

53 Ian Macfarlane (Minister for Industry and Science), “Call for Voluntary Land Nominations for a National Radioactive Waste Management Facility,” media release, Parliament of Australia webpage, March 2, 2015, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F3692106%22>

54 Morsley, “Protecting Authority, Burying Dissent,” op.cit.

In November 2015, the government announced six shortlisted sites chosen from 28 nominations from landholders across Australia. The following April, the government announced that Wallerberdina Station in SA's Flinders Ranges was the selected site for a national waste facility and approved it under section 7 of the NRWMA.⁵⁵

Wallerberdina Station was nominated by a former senior Liberal Party politician who had previously chaired a federal review into radioactive waste management. The nomination occurred without the knowledge or consent of Adnyamathanha Traditional Owners. A majority of Traditional Owners opposed the proposal, as did their representative body, the Adnyamathanha Traditional Lands Association.



A June 2016 protest in Port Augusta against plans for a national radioactive waste dump in the Flinders Ranges of South Australia (Credit: Cat Beaton)

Adnyamathanha Traditional Owner Regina McKenzie told ABC television: “Almost every waste dump is near an Aboriginal community. It’s like, yeah, they’re only a bunch of blacks, they’re only a bunch of Abos, so we’ll put it there. Don’t you think that’s a little bit confronting for us when it happens to us all the time?”

⁵⁵ Josh Frydenberg (Minister for Resources, Energy and Northern Australia), “Site Shortlisted for National Radioactive Waste Management Facility,” media release, Parliament of Australia webpage, 29 April 2016, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F4529554%22>; See also, National Radioactive Waste Management Facility – Approval of Nominated Site, Australian Government webpage, May 6, 2016, <https://www.legislation.gov.au/Details/C2016G00614>

Can't they just leave my people alone?"⁵⁶

In late 2019, the Australian Electoral Commission conducted a "community ballot" open to those living within a certain distance of the proposed waste site. Of 862 formal votes, 47.3 percent supported hosting the facility in their community. In December, the federal Resources Minister acknowledged there was insufficient community support and that the site would not be considered further.⁵⁷

Kimba

In February 2017, while Wallerberdina Station was still being considered, two sites near the SA farming town of Kimba were nominated and the government announced in June 2017 that those two sites – Napandee and Lyndhurst – would be considered along with Wallerberdina Station.⁵⁸ (Two other sites near Kimba had previously been rejected due to a lack of community support.)

After Wallerberdina Station was rejected by the government in 2019, the Kimba sites were the only sites under consideration. The government narrowed the site consideration to just one possible site in early 2020,⁵⁹ and the Minister formally declared the Napandee site in November 2021, which resulted in the Australian government acquiring the land for the facility.⁶⁰

The federal government and the District Council of Kimba refused a request from the Barngarla Determination Aboriginal Corporation (BDAC) to include Barngarla Traditional Owners in a "community ballot," whether they currently resided within the council district's boundaries or not. BDAC took the matter to the Federal Court, arguing that excluding native title holders from the ballot contravened the Racial Discrimination Act 1975. However, the Federal Court, while accepting that

56 Alex Mann, "Opposition to the Federal Government's Proposed Nuclear Waste Facility in the Flinders Ranges is Heating up, with Traditional Owners Travelling to Meet with Federal Resources Minister Josh Frydenberg," *ABC*, May 26, 2016, <http://web.archive.org/web/20160629205305/http://www.abc.net.au/7.30/content/2015/s4470183.htm>

57 Matthew Canavan (Minister for Resources and Northern Australia), "National Radioactive Waste Management Facility – Wallerberdina Station Community Ballot," media release, Parliament of Australia webpage, December 13, 2019, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F7079970%22>

58 Matthew Canavan (Minister for Resources and Northern Australia), "Two Kimba Landowners Submit Voluntary Applications to Host a National Radioactive Waste Management Facility," media release, Parliament of Australia webpage, February 2, 2017, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F5075275%22>

59 Matthew Canavan (Minister for Resources and Northern Australia), "National Radioactive Waste Management Facility - Napandee site," media release, Parliament of Australia webpage, February 1, 2020, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F7165699%22>

60 Keith Pitt (Minister for Resources and Water) and Rowan Ramsey (Member for Grey), "National Radioactive Waste Management Facility to be Delivered Near Kimba in South Australia," joint media release, Parliament of Australia webpage, November 29, 2021, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F8305481%22>

Barngarla views had not been included, dismissed BDAC's application and argued that this exclusion was not on the basis of race.⁶¹

In late 2019, a "community ballot" ordered by the government resulted in 61.6 percent of voters in support of a radioactive waste facility, and 38.4 percent in opposition.⁶² The government accepted that result as indicative of "broad community support". However, Traditional Owners were not permitted to vote in the ballot if they did not live in the Kimba council region. A BDAC statement said, "The only reason why there was a yes vote was because Barngarla were excluded, and this has then been used as the justification to allow the facility to be built, entirely ignoring Barngarla's views."⁶³

BDAC engaged the Australian Election Company to conduct a confidential postal ballot open to all Barngarla Traditional Owners. Not one respondent voted in favour.⁶⁴

The Coalition government also tried to amend the NRWMA in order to deny Barngarla Traditional Owners and others the right to a judicial review of the declaration of the waste facility site.⁶⁵ However, the draft legislation was blocked by the Labor Party, minor parties, and independent senators. In June 2021, amendments to the NRWMA passed into law, but rights to judicial review were retained.

BDAC sought a judicial review of the previous government's declaration of the Napandee site.⁶⁶ It was an unequal battle. The federal government spent A\$13.8 million on the legal battle whereas BDAC's legal expenditure was a tiny fraction

61 Barngarla Determination Aboriginal Corporation RNTBC v District Council of Kimba [2019] FCA 1092, July 12, 2019, <http://www.austlii.edu.au/cgi-bin/viewdoc/au/cases/cth/FCA/2019/1092.html>

62 Matthew Canavan (Minister for Resources and Northern Australia), "National Radioactive Waste Management Facility – Kimba Community Ballot," media release, Parliament of Australia webpage, November 7, 2019, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F7013455%22>

63 Michelle Etheridge, "Kimba Radioactive Waste Debate Hits Court as Barngarla Community Says its Concerns Have been 'Ignored'", *The Advertiser*, February 4, 2020, <https://www.adelaidenow.com.au/business/sa-business-journal/kimba-radioactive-waste-debate-hits-court-as-barngarla-community-says-its-concerns-have-been-ignored/news-story/255f1f0cbbc8ccc33aabae7dad03089a>

64 Ibid.

65 "National Radioactive Waste Management Amendment (Site Selection, Community Fund and Other Measures) Bill 2020," Parliament of Australia webpage, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22legislation%2Fbillhome%2F6500%22>; See also, "Senate Economics Legislation Committee, National Radioactive Waste Management Amendment (Site Specification, Community Fund and Other Measures) Bill 2020," Report, dated September 2020," Parliament of Australia webpage, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22publications%2Ftabledpapers%2F0a7c8eed-c043-4d12-8fb2-e97135d09f96%22>

66 Barngarla Determination Aboriginal Corporation RNTBC v Minister For Resources & Anor, August 11, 2023, Commonwealth Courts Portal webpage, <https://comcourts.gov.au/pas/file/Federal/P/SAD224/2021/actions>

of that amount.⁶⁷ Moreover, the NRWMA stripped Barngarla Traditional Owners of many legal rights they may have sought to enforce.

Nonetheless, BDAC fought the declaration on five different grounds and in July 2023, the Federal Court upheld one of the complaints, finding that a former minister’s “apprehended bias” and “pre-judgement” were so egregious as to invalidate the declaration of the Napandee site.⁶⁸



Barngarla Traditional Owners outside the Federal Court in Adelaide, March 2023 (Credit: Jim Green)

Jason Bilney, chairperson of the Barngarla Determination Aboriginal Corporation, outlined that the “Barngarla fought for 21 years for Native Title rights over our lands, including Kimba, and we weren’t going to stop fighting for this.

⁶⁷ Barngarla Determination Aboriginal Corporation, “Federal Governments spend against Barngarla Traditional Owners keep climbing in the lead up to a referendum for a Voice to Parliament”, media release, June 13, 2023, <https://nuclear.foe.org.au/barngarla/>

⁶⁸ Barngarla Determination Aboriginal Corporation RNTBC v Minister for Resources [2023] FCA 809, Federal Court of Australia, <https://www.judgments.fedcourt.gov.au/judgments/Judgments/fca/single/2023/2023fca0809>

We have always opposed a nuclear waste dump on our country and today is a big win for our community and elders.”⁶⁹

Aunty Dawn Taylor, a Barngarla elder, said, “I am so happy for the women’s sites and dreaming on our country that are not in the firing line of a waste dump. I fought for all this time for my grandparents and for my future generations as well.”⁷⁰

The government decided in August 2023 not to challenge the Federal Court decision and not to proceed with the proposed Napandee waste facility.⁷¹ No further announcements have been made about future management of radioactive waste.

An International Nuclear Waste Import Business For Australia?

National low-level and intermediate-level waste facilities from domestically generated nuclear waste are not the only struggles Australia has faced. Pangea Resources, majority owned by British Nuclear Fuels Ltd., promoted an international nuclear waste import and management business, to be based either in Western Australia or SA, but abandoned its work in 2002 due to overwhelming public and political opposition. However, the idea of a nuclear waste import business resurfaced in 2015 when the SA Labor government established the South Australian Nuclear Fuel Cycle Royal Commission to explore commercial opportunities across the nuclear fuel cycle. Commissioned research envisaged the importation of 138,000 tonnes of high-level nuclear waste (about one-third of the world’s total) and 390,000 cubic metres of intermediate-level waste.

The SA government’s handling of the Royal Commission process systematically disenfranchised Aboriginal people from the start. The truncated timeline for providing feedback on the draft Terms of Reference disadvantaged people in remote regions, people with little or no access to email and the internet, and people for whom English is a second language. There was no translation of the draft Terms of Reference, and a regional communications and engagement strategy was not developed or implemented by the SA government. Those lapses persisted throughout the Royal Commission to a large degree. No Aboriginal people were employed by the Royal Commission or included on the Commission’s Expert Advisory Committee.

69 Barngarla Determination Aboriginal Corporation, “Barngarla Court Win Over Nuclear Dump”, Media Release, July 18, 2023, <https://www.facebook.com/groups/1021186047913052/posts/6783980238300242/>

70 Barngarla Determination Aboriginal Corporation, “Barngarla Court Win Over Nuclear Dump”, Media Release, July 18, 2023, <https://www.facebook.com/groups/1021186047913052/posts/6783980238300242/>

71 King, “Statement on the National Radioactive Waste Management Facility”, op.cit.

After the Royal Commission handed its final report to the SA Labor government in May 2016, the government established a “Consultation and Response Agency” (CARA). Ostensibly, CARA was tasked with a statewide consultation process but it was seen by many as a promotional exercise. CARA reported in November 2016 that, in over three rounds of telephone surveys, just 31 percent of South Australians supported the proposal while 53 percent were opposed and 16 percent were undecided.⁷²

CARA’s report further stated:

“Many [Aboriginal] participants expressed concern about the potential negative impacts on their culture and the long-term, generational consequences of increasing the state’s participation in the nuclear fuel cycle. There was a significant lack of support for the government to continue pursuing any form of nuclear storage and disposal facilities. Some Aboriginal people indicated that they are interested in learning more and continuing the conversation, but these were few in number.”

In November 2016, a Citizens’ Jury, established by the SA government and composed of 350 South Australians, released its report into the nuclear waste import proposal.⁷³ Two-thirds of the Jury members rejected the proposal “under any circumstances.” A key factor in the Jury’s rejection of the proposal – perhaps outweighing any other concern – was that Aboriginal people had spoken loudly and in near-unison in opposition.

The Jury’s report said:

“Aboriginal people are the custodians of the land. They have a long-standing connection with the land. We need to consider the traditional owners and current residents of the land; not only of the final location of the nuclear waste facility, but also the lands that the waste is transported through.

“Many Aboriginal people have no or little trust in government based on lack of transparency and lack of attempts to fix previous issues. There is a legacy of government implementing processes that are harmful to Indigenous people. There is too much unfinished business [...]”

72 Community Views Report,” Nuclear Fuel Cycle Royal Commission Consultation and Response Agency, November 2016, accessed November 13, 2023, <http://web.archive.org/web/20220310060752/http://assets.yoursay.sa.gov.au/production/2016/11/11/09/37/34/0c1d5954-9f04-4e50-9d95-ca3bfb7d1227/NFCRC%20CARA%20Community%20Views%20Report.pdf>

73 “South Australia’s Citizens’ Jury on Nuclear Waste Final Report,” South Australian government, November 2016, <http://web.archive.org/web/20220306105550/http://assets.yoursay.sa.gov.au/production/2016/11/06/07/20/56/26b5d85c-5e33-48a9-8eea-4c860386024f/final%20jury%20report.pdf> (accessed November 13, 2023).

SA Premier Jay Weatherill acknowledged the “overwhelming opposition of Aboriginal people” to the waste import proposal during an ABC radio interview in November 2016.⁷⁴ The Premier then announced that he wanted the waste import proposal to be subject to a statewide referendum and that Aboriginal Traditional Owners would have a right of veto over any related developments on their lands.⁷⁵ In support of the right of veto, the Premier noted that “Aboriginal people’s history with the nuclear industry demonstrates a need for significant healing”.⁷⁶



A 3000-strong, October 2016 protest in Adelaide against plans for a nuclear waste import industry and plans for a national radioactive waste dump in SA (Credit: Friends of the Earth Australia)

74 South Australia, *ABC Radio 891*, November 15, 2016.

75 Daniel Wills, “Premier Jay Weatherill Effectively Buries Nuclear Waste Dump Proposal with Vague Promise of Statewide Referendum,” *The Advertiser*, November 14, 2016, <https://www.adelaidenow.com.au/news/south-australia/premier-jay-weatherill-will-hold-referendum-on-potential-nuclear-waste-industry-in-south-australia/news-story/c5ee0bcf003c0a5000867674c5b03236>

76 Michael Owen, “Bernardi’s Bid to Lift Nuke Nans,” *The Australian*, November 12, 2017, <http://www.theaustralian.com.au/news/nation/bernardi-seeks-to-lift-ban-on-nukes/newsstory/06ef1d96c74c833146722aeb88c3248>

Karina Lester, chairperson of the Yankunytjatjara Native Title Aboriginal Corporation (YNTAC) and daughter of atomic test survivor Yami Lester, said:

*"We will stand our ground and maintain what we have said all along: 'No waste dump in our Ngura (Country).' I will take this to our YNTAC AGM and discuss with our members what the Premier is now saying, to run a Statewide Referendum, and rally my community to use our rights to veto and say no to this unjust and insane idea of storing and disposing of nuclear waste from other countries."*⁷⁷

The proposed referendum did not eventuate. Support for the waste import proposal collapsed in the aftermath of the Citizens Jury's report and the plan for a nuclear waste import business was effectively at an end by mid-2017.

However, the 2021 announcement that Australia will acquire nuclear-powered submarines has inevitably sparked renewed interest in establishing a nuclear waste import business in South Australia.⁷⁸

High-Level Waste from Nuclear-Powered Submarines

In September 2021, Australian Prime Minister Morrison joined US President Biden and UK Prime Minister Johnson to announce a new trilateral security partnership, labelled AUKUS. The very first part of the agreement for the three governments was to assist Australia to acquire nuclear-powered submarines.⁷⁹ Bipartisan support from the major political parties saw this policy maintained even with the election of a new Labor government the next year. With a plethora of safeguards, proliferation,⁸⁰ cost, and waste issues, the AUKUS proposals marks for Australia, "a radical shift away from a proud history as a non-nuclear state, assuming a position of provocation that is out of step with the expectations of our regional neighbours, and with a price tag far beyond acceptable to the Australian public."⁸¹

77 No Dump Alliance, "Weatherill has Turned his Back on Traditional Owners Over Waste Dump", Media Release, November 14, 2016, <https://nuclear.foe.org.au/weatherill/>

78 Tom Kenyon, "Nuclear waste not, want not," *InDaily*, March 20, 2023, <https://indaily.com.au/opinion/2023/03/20/nuclear-waste-not-want-not/>

79 Justin Katz, "US Navy Sub Boss Reveals New Details on AUKUS Virginia Class Sub Sales to Australia," *Breaking Defense*, November 8, 2023, <https://breakingdefense.com/2023/11/us-navy-sub-boss-reveals-new-details-on-aukus-virginia-class-sub-sales-to-australia/>

80 Marianne Hanson et al, *Troubled Waters: Nuclear submarines, AUKUS and the NPT*, ICAN Australia report, July 2022, <https://icanw.org.au/troubled-waters/>

81 "AUKUS: Action is the Antidote to Despair," *ICAN Australia press release*, March 30, 2023, https://icanw.org.au/aukus_action/

One of the key areas of concern under the AUKUS agreement is that Australia has committed to manage all radioactive waste generated from the nuclear-powered submarine program within Australia.⁸² The waste that Australia will be left to deal with includes high-level radioactive waste, which requires another level of management, security, and political support.

Currently, Australia neither creates nor has storage suitable for high-level radioactive waste. Yet under AUKUS Australia will be responsible for managing high-level radioactive waste in the form of spent fuel, along with intermediate- and low-level radioactive waste streams arising from the operation and decommissioning of nuclear-powered submarines. That includes waste arising from second-hand submarines to be purchased from the US under the agreement, as well as new submarines built for Australia's use.

The Defence Department is working to identify potential waste disposal sites for AUKUS radioactive waste on defence land, or considering acquiring lands to reclassify as defence land for a high-level waste repository. Political leaders in several states have rejected any high-level nuclear waste disposal. The Woomera Prohibited Area in SA is seen as a primary target.⁸³

The government is considering changes to the federal Defence Act to override state/territory legislation to “provide certainty” to Defence roles, operations, and facilities.⁸⁴ The amended Defence Act may be more draconian and opaque than the National Radioactive Waste Management Act as the management of AUKUS waste will be a military matter. The government cited national security concerns when rejecting a Senate order to produce documents relating to managing waste from nuclear-powered submarines.⁸⁵

The Radiation Health and Safety Advisory Council of the Australian Radiation Protection and Nuclear Safety Agency has warned against allowing the national security dimensions of the nuclear submarine project to, “mask inadequate radiation safety protection of the Australian public, weaken regulatory authority,

82 “Trilateral Australia-UK-US Partnership on Nuclear-Powered Submarines,” White House, Fact Sheet, March 13 2023, <https://www.whitehouse.gov/briefing-room/statements-releases/2023/03/13/fact-sheet-trilateral-australia-uk-us-partnership-on-nuclear-powered-submarines/>

83 Phillip Coorey, “Woomera Looms as National Nuclear Waste Dump Site Including for AUKUS Submarine High-Level Waste,” *Australian Financial Review*, August 10, 2023, accessed November 10, 2023, <https://www.afr.com/politics/federal/woomera-looms-as-national-nuclear-waste-dump-site-20230810-p5dvle>; See also, David Noonan, “Civil Society Faces Imposition of an AUKUS Military High Level Nuclear Waste Dump,” *Friends of the Earth website*, August 13, 2023, accessed November 10, 2023, <https://nuclear.foe.org.au/wp-content/uploads/AUKUS-nuclear-waste-David-Noonan-brief-13Aug2023.pdf>

84 Noonan, “Civil Society Faces Imposition,” op.cit.

85 Daniel Hurst, “Greens Attack Albanese Government’s ‘Deeply Unsettling’ Secrecy on Submarine Nuclear Waste Plans,” *The Guardian*, March 24, 2023, accessed November 10, 2023, <https://www.theguardian.com/world/2023/mar/24/greens-attack-albanese-governments-deeply-unsettling-secrecy-on-submarine-nuclear-waste-plans>

or inhibit transparency on matters of Australian public safety.”⁸⁶

With a long history of failed nuclear waste management strategies and policies, the problems of disposal of high-level nuclear waste generated by AUKUS nuclear submarines poses very real problems for government and considerable concern for the Australian community, particularly First Nations peoples.

Conclusions

To date Australia provides a case study in how not to manage radioactive waste. Fundamental change is needed to address a decades-long legacy of failure. Successive governments have shown that authoritarian approaches to radioactive waste management are met with strong and effective community opposition. Attempts to impose nuclear waste on unwilling communities fail. Advocacy for clean-up and remediation, particularly from First Nations people who bear the disproportionate burden of these nuclear harms, continues. As the international community develops strategies for humanitarian assistance and environmental remediation through the Treaty on the Prohibition of Nuclear Weapons, it is time for Australian policymakers to consider the lessons of the past and move towards a more considered and responsible future.

Australia is far from resolving its radioactive waste management problems. Atomic weapons test sites are long overdue for remediation and communities deserve answers about ongoing health concerns from exposure. A realistic solution to a long-lived problem of radioactive waste based on world’s best practice principles and with consideration of the human rights of First Nations peoples is a standard Australia can no longer walk past. Such a standard requires listening to concerns of affected communities, meaningful consent provisions including a requirement for free, prior, and informed consent from First Nations people, while engaging with national and international experts. An “out of sight, out of mind” mentality can no longer be the approach to a major environmental and social challenge.

In October 2023, Dr. Marcos Orellana, UN Special Rapporteur on Toxics and Human Rights made a visit to Australia, hearing from a diverse range of experts on the implications for human rights due to the management of hazardous substances and wastes. His initial report noted,

⁸⁶ “Principles and Attributes of an Effective Independent Regulator for Nuclear-Powered Submarines,” ARPANSA Radiation Health and Safety Advisory Council, October 13, 2022, <https://www.arpansa.gov.au/sites/default/files/documents/2023-03/RHC%20Letter%20to%20the%20CEO%20-%20Regulatory%20principles%20for%20nuclear%20powered%20submarines%2C%20October%202022.pdf> ; See also, Hurst, “Greens Attack Albanese Government’s ‘Deeply Unsettling’ Secrecy,” *The Guardian*. op.cit.

*"It is instructive that all siting initiatives by the Government for a radioactive waste repository have failed, leaving a legacy of division and acrimony in the communities. The loss of lives and songlines resulting from exposure of Indigenous peoples to hazardous pesticides in the Kimberley region, from asbestos exposure in Wittenoom in Western Australia, and from the radioactive contamination following nuclear weapons testing in South Australia, are all open wounds. Alignment of regulations with the UN Declaration on the Rights of Indigenous Peoples is a critical step in the path towards healing open wounds of past environmental injustices."*⁸⁷

A cooperative, inclusive approach to radioactive waste management is likely to be more effective than the failed authoritarian approaches of successive federal governments in addition to the inherent value in protecting and championing democratic rights. The UK Committee on Radioactive Waste Management notes:

*"Experience in the UK and abroad clearly demonstrates the failures of earlier 'top down' mechanisms (often referred to as 'Decide-Announce-Defend') to implement long-term waste management facilities. It is generally considered that a voluntary process is essential to ensure equity, efficiency and the likelihood of successfully completing the process. There is a growing recognition that it is not ethically acceptable for a society to impose a radioactive waste facility on an unwilling community."*⁸⁸

An important initial step towards a more democratic and more effective approach to radioactive waste management would be amending the National Radioactive Waste Management Act (NRWMA). The Act sharply restricts the democratic rights of all Australians and it goes to extraordinary lengths to dispossess and disempower First Nations people. It is incompatible with a cooperative, inclusive approach to radioactive waste management. Likewise, legislation governing the management of radioactive waste from a nuclear submarine program should reject the authoritarian approach of the NRWMA.

The federal government should take further steps to prevent repetition of the pattern of First Nations people facing the imposition of radioactive waste facilities

⁸⁷ Dr. Marcos A. Orellana, *Australia: Deep divide between Government and community narratives on toxics fuels anger and distrust, says UN expert*, Media Release, September 8, 2023, www.un.org/sites/un2.un.org/files/press_release_8_september_2023_.pdf; See also, "End of Mission Statement by the UN Special Rapporteur on Toxics and Human Rights, Marcos A. Orellana, on his visit to Australia, August 28 to September 8, 2023," accessed November 10, 2023, www.un.org/sites/un2.un.org/files/eom_-_08_sep_2023_-_final_.pdf

⁸⁸ "Managing our Radioactive Waste Safely: CoRWM's Recommendations to Government," UK Committee on Radioactive Waste Management, July 31, 2006: 114, https://assets.publishing.service.gov.uk/media/5a7c52e540f0b62dffd157c/700_-_CoRWM_July_2006_Recommendations_to_Government_pdf.pdf

in circumstances where consultation is tokenistic and consent resides solely with the federal minister. The government should incorporate the UN Declaration on the Rights of Indigenous Peoples into Australian law. Of particular relevance is Article 29 of the Declaration which states that no storage or disposal of hazardous materials shall take place in the lands or territories of Indigenous peoples without their free, prior, and informed consent.⁸⁹

The federal government has no plan for the management of existing radioactive waste or for the management of future wastes which could include high-level nuclear waste from submarines. A wide-ranging, independent national inquiry should be established by the federal government to investigate waste management options and related issues such as legislation and regulation.⁹⁰ Moreover, there is a need for studies, assistance for communities, clean-up, and monitoring of all British nuclear weapons test sites in Australia in line with the positive obligations in the Treaty on the Proliferation of Nuclear Weapons.⁹¹

89 “United Nations Declaration on the Rights of Indigenous Peoples,” United Nations, 2007, https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

90 For discussion, see Jim Green, Natalie Wasley, and Dave Sweeney, “Responsible Radioactive Waste Management in Australia: The Case for an Independent Commission of Inquiry,” November 2014, <https://nuclear.foe.org.au/wp-content/uploads/Responsible-Radioactive-Waste-Management-The-need-for-an-Inquiry-Final.pdf>

91 “Article 6: Victim Assistance,” UN, *Treaty on the Prohibition of Nuclear Weapons*.

About APLN

The Asia-Pacific Leadership Network for Nuclear Non-Proliferation and Disarmament (APLN) is a Seoul-based organisation and network of political, military, and diplomatic leaders and experts from across the Asia-Pacific region working to address global security challenges, with a particular focus on reducing and eliminating nuclear weapons risks.

The mission of APLN is to inform and stimulate debate, influence action, and propose policy recommendations designed to address regional security threats, with an emphasis on nuclear and other WMD (weapon of mass destruction) threats, and to do everything possible to achieve a world in which nuclear weapons and other WMDs are contained, diminished, and eventually eliminated.



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