



Friends of the Earth Adelaide

c/- Conservation Council of SA, 111 Franklin St, Adelaide SA 5000
adelaidefoe.org | facebook.com/foe.adelaide | e: adelaide.office@foe.org.au

Nuclear-Powered Submarine Partnership and Collaboration Agreement between the Government of Australia and the Government of the United Kingdom of Great Britain and Northern Ireland

Submission to the Joint Standing Committee on Treaties

This *Agreement (Australia - UK Agreement)* should be rejected for reasons including those outlined below.

1. Because the underlying premises are false or misleading.

(a) Australia's defence and security

The premises stated in the preamble include:

Recognising that the first initiative of AUKUS is a shared ambition to support Australia in acquiring a conventionally armed, nuclear-powered submarine ("SSN") capability for the Royal Australian Navy at the earliest possible date while setting the highest nuclear non-proliferation standard, through a joint endeavour between the AUKUS partners with a focus on interoperability, commonality, and mutual benefit, which will strengthen their combined military capabilities, boost their collective industrial capacity, and enhance their ability to promote stability and security in the Indo-Pacific and beyond ("AUKUS Pillar I")

AUKUS will not "strengthen ... military capabilities ... and enhance ... stability and security in the Indo-Pacific and beyond". Australia's military capabilities and security are more likely to be diminished for the following reasons:

- The enormous cost of AUKUS will come at the expense of other areas of defence that are better aligned with Australia's security needs.
- Funds allocated to AUKUS will come at the expense of non-military areas – such as climate change and the environment, health, education, housing and social security – that are highly relevant to the security of ordinary Australians, but which are excluded from narrow military-focused national security debates. (Refer section 4 below.)
- It is highly likely that the AUKUS submarines will never be delivered, let alone within a reasonable time frame. (Refer attached report by Tim Deere-Jones for analysis of delays in UK nuclear submarine programme.¹) The same applies to the Virginia class submarines, which are supposed to fill the breach while the AUKUS submarines are designed and constructed. (Refer several reports by the Congressional Research Service, including

¹ Tim Deere-Jones, 'The British Experience with Nuclear-Powered Submarines: Lessons for Australia', August 2025

<https://nuclear.foe.org.au/wp-content/uploads/Deere-Jones-nuclear-submarine-report-final-August-2025.pdf>

February 11, 2025,² for analysis of the limitations of US industrial capacity.) In the meantime, Australia will be left exposed with a military policy that is not fit for purpose.

- Australia's sovereignty will be compromised. Pressure is already being applied by the Trump Administration for Australia to increase its defence spending and we have no doubt that, regardless of claims to the contrary by Minister for Defence Richard Marles, Australia has no chance of acquiring Virginia-class submarines from the US unless it commits to making them available in any war with China over Taiwan.
- Even if Australia eventually receives nuclear powered submarines, they are more likely to have a destabilising effect. Several leaders and experts from Pacific Island states have expressed concerns about the security implications of AUKUS for the Pacific region.^{3,4,5}

Claims that AUKUS will enhance Australia's security are disputed by eminent military analysts, as demonstrated by the quotes below.

Hugh White (emeritus professor of strategic studies at the Australian National University, former deputy-secretary of the Department of Defence) states as follows:

The new plan – to buy a nuclear-powered submarine instead – is worse [than the old plan]. It will make the replacement of the Royal Australian Navy's fleet of Collins-class boats riskier, costlier and slower. It means an even bigger slump in our submarine capability over the next few dangerous decades. And it deepens our commitment to the United States' military confrontation of China, which has little chance of success and carries terrifying risks.⁶

He concludes that it "tied Australia to a deal that undermines our sovereign capabilities, overspends on hardware we can barely be confident of operating, and drags us closer to the front line of a war we may have no interest in fighting".⁷

Major General Michael G Smith (retired) says:

In my view this decision to procure nuclear-powered submarines will prove to be as useless, but even more costly, than was our flawed Singapore strategy before World War II.⁸

² Congressional Research Service, 'Navy Virginia-Class Submarine Program and AUKUS Submarine (Pillar 1) Project: Background and Issues for Congress', February 11, 2025, RL32418
<https://sgp.fas.org/crs/weapons/RL32418.pdf>

³ Kristina Kukolja, 'Time for Australia to sign non-nuclear treaty', *The Saturday Paper*, 28 June 2025
<https://www.thesaturdaypaper.com.au/news/defence/2025/06/28/time-australia-sign-non-nuclear-treaty>

⁴ Daniel Hurst, 'A four-decade-old Pacific treaty was meant to preserve the 'peaceful region'. Now experts say it's being exploited', *The Guardian*, 19 November 2023
<https://www.theguardian.com/world/2023/nov/19/a-40-year-old-pacific-treaty-was-meant-to-maintain-the-peaceful-region-now-experts-say-its-being-exploited>

⁵ Nic Mclellan, 'AUKUS disrupts "a very peaceful part of planet Earth"', *Chain Reaction* #141, December 2021, pp. 26-29
https://www.foe.org.au/aucus_disrupts_a_very_peaceful_part_of_planet_earth

⁶ Hugh White, 'From the submarine to the ridiculous', *The Saturday Paper*, 18 September 2021
<https://www.thesaturdaypaper.com.au/2021/09/18/the-submarine-the-ridiculous/163188720012499#mtr>

⁷ Ibid.

⁸ Major General Michael G Smith AO (Ret'd), 'How should Australia defend itself in the 21st century?

Sam Roggeveen (director of the Lowy Institute's International Security Program) is quoted as saying:

It (AUKUS) is a project of vaulting ambition that is out of step with Australian tradition as a middle military power, wildly at odds with our international status and, most importantly, a wasteful expenditure of public money that will make Australia less safe.⁹

(b) Nuclear non-proliferation

The preamble includes the following premises:

Reaffirming their respective obligations under the *Treaty on the Non-Proliferation of Nuclear Weapons* ("NPT") done at Washington, London, and Moscow on 1 July 1968, as well as Australia's obligations under the *South Pacific Nuclear Free Zone Treaty* ("Treaty of Rarotonga") done at Rarotonga on 6 August 1985, and the United Kingdom's obligations under Protocols 1, 2 and 3 ("Protocols") to the Treaty of Rarotonga; ...
Further recognising that Australia has announced its intention to negotiate and conclude with the International Atomic Energy Agency ("IAEA") an arrangement pursuant to Article 14 of the Australia-IAEA Comprehensive Safeguards Agreement.

These premises fail to acknowledge that the 'Article 14' arrangement in question is a flawed attempt to close a dangerous loophole in the *Treaty on the Non-Proliferation of Nuclear Weapons* (NPT). The NPT only requires the application of safeguards to 'peaceful' nuclear activities. That leaves unstated the question of what to do about 'non-peaceful' nuclear activities other than nuclear weapons, which are banned for non-nuclear-weapon states.

In a 6 October 2021 letter to President Biden, seven leading US non-proliferation experts explain the problem as follows:

The IAEA is charged by the Treaty on the Nonproliferation of Nuclear Weapons with verifying that nuclear material in non-weapon states is not diverted to nuclear weapons. The IAEA is constrained, however, by Section 14 of its standard safeguard agreement, "Non-Application of Safeguards to Nuclear Material to be Used in [Non-Explosive] Non-Peaceful Activities," which would allow a country to exempt HEU fuel from normal inspections for decades. This well-known loophole has not yet been tested.¹⁰

These nuclear non-proliferation experts go on to articulate the following concern:

We ... are concerned that the AUKUS deal to supply Australia with nuclear-powered attack submarines fueled with weapon-grade uranium could have serious negative impacts on the

Silencing the drums and dogs of war', *The New Daily*, May 26, 2023

<https://thenewdaily.com.au/news/world/2023/05/26/how-should-australia-defend-itself-in-the-21st-century-silencing-the-drums-and-dogs-of-war/>

⁹ Nick Deane, 'Hugh White dismantles the AUKUS project', *Pearls and Irritations*, Feb 29, 2024

<https://johnmenadue.com/hugh-white-dismantles-the-aukus-project/>

¹⁰ Frank von Hippel et al, Letter to President Biden, 6 October 2021

<https://sgs.princeton.edu/sites/default/files/2021-10/AUKUS-Letter-2021.pdf>

global nuclear nonproliferation regime and thereby on US national security.¹¹

They are concerned that countries including Iran, Brazil and South Korea could use the agreement between Australia, the UK and the US as a precedent to support their own interest in acquiring nuclear submarines. The experts express their concern for US national security, but the negative impacts also apply to the national security of Australia.

Regarding the *Treaty of Rarotonga*, while nuclear-powered submarines constructed for Australia might not breach the letter of the *Treaty*, the proposed *Australia - UK Agreement* cannot be separated from the tri-partite *AUKUS Agreement*. We believe the plan to station US and UK nuclear submarines in Stirling WA under the *AUKUS Agreement* would be in breach of the *Treaty of Rarotonga*. Given that the US and the UK both have a policy of neither confirming nor denying the presence or absence of nuclear weapons on their submarines, ships and aircraft, the Australian government (let alone the Australian public) will never know whether nuclear weapons are on board US and UK vessels stationed in Australian ports. If the government is unable to provide assurances that nuclear weapons are not being brought into Australia, we must, for the purpose of the *Treaty of Rarotonga*, assume that nuclear weapons are on board any nuclear weapons capable platforms that enter our territory (e.g. Virginia class submarines in Stirling WA,¹² or B-52 bombers in RAAF Base Tindal NT). ‘Strategic ambiguity’ provides no defence under the *Treaty of Rarotonga*.

AUKUS proponents claim that the pact does not contravene the *Treaty of Rarotonga* because, even if nuclear weapons enter Australia, they will not be ‘stationed’ here. We take a contrary view: namely, that the definition in Article 5 of the *Treaty of Rarotonga* is broad enough to conclude that, under the expanded rotation and basing proposed under AUKUS and related military cooperation arrangements, nuclear weapons brought into Australia could potentially be ‘stationed’ in Australia.

Unless the matter is resolved in a court of law, or perhaps by the Consultative Committee established under Annex 3 of the *Treaty*, no doubt the status of AUKUS under the *Treaty of Rarotonga* will continue to be debated. However, even if a court, or the Consultative Committee, determined that AUKUS does not breach the letter of the *Treaty*, we would still contend that it breaches the spirit of the *Treaty*.¹³

¹¹ Ibid.

¹² Deployment of ‘sea-launched cruise missile-nuclear’ on Virginia class submarines is planned for 2034: Natalie Treloar, ‘SLCM-N, the Virginia-Class Submarine, and AUKUS’, *Global Security Review*, 20 May 2025

<https://globalsecurityreview.com/slcm-n-the-virginia-class-submarine-and-aukus/>

Australian Naval Institute, ‘Getting nuclear missile on Virginia-class subs’, 23 May 2025

<https://navalinstitute.com.au/getting-nuclear-missile-on-virginia-class-subs/>

¹³ It would be interesting to see the response of the Australian government if a formal complaint under Annex 4 of the *Treaty of Rarotonga* were lodged by a State Party in regard to the alleged stationing of nuclear weapons in Australian territory. What would the Australian government do if the Consultative Committee ordered a special inspection of Stirling naval base or Tindal air base? What would the United States government do, even though they are not a party to the *Treaty* and it is not their territory? It boggles the mind, but it would be a perfectly reasonable response from the other Parties to the *Treaty*.

(c) Safety record

The preamble includes the following premise:

Recognising the principles, standards, and quality that have supported the United Kingdom and United States naval nuclear propulsion programmes' unmatched safety records and that Australia has committed to upholding these same principles and standards to safely steward naval nuclear propulsion technology

In fact, there have been many safety issues with both the UK and the US naval nuclear propulsion programmes.

There are nine nuclear submarines lying on the sea bed around the world. Two of those are US nuclear submarines. All on board were killed. These sunken submarines are unrecoverable. They will continue to decay until eventually their entire inventory of radioactive material is released into the environment. In regard to the UK nuclear submarine programme, a report by Tim Deere-Jones prepared for Friends of the Earth Australia (attached) cites numerous incidents involving collisions, sinking of civilian vessels (presumed sunk by 'interactions' with nuclear submarines), near misses, groundings, and radioactivity discharged from nuclear submarine bases.¹⁴ Many of the examples cited relate to UK submarines, while some relate to US submarines and others to third nations' submarines. The initial official response to these accidents and incidents is denial until forced by evidence and public pressure to admit responsibility. In short, the claim by the US, UK and Australian governments that they have 'unmatched safety records' should be recognised as propaganda.

2. Radioactive waste

If Australia goes ahead with its plan to acquire nuclear powered submarines, the resulting spent nuclear fuel and other radioactive waste will continue to be dangerous for tens of thousands of years. It will have to be managed, stored and disposed of, but the countries from which we would purchase these submarines inspire no confidence that this can be safely achieved. In over 60 years of operating nuclear submarines, the US and UK have been unable to dispose of their own spent nuclear fuel.

Besides spent nuclear fuel from Australian AUKUS submarines, we are concerned that Australia will be pressured into disposing of radioactive waste from UK and US submarines. The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) has already granted a license to prepare a site for a facility to store and manage low level radiological waste at the *HMAS Stirling Naval Base* and is considering an application for a construction licence for this facility. Article VI, part E of the proposed *Australia-UK Agreement* states, "Australia shall not receive, manage, store or dispose of any spent nuclear fuel from United Kingdom SSNs." It is concerning that the *Agreement* does not specifically exclude the permanent disposal of UK low level waste and the

¹⁴ Tim Deere-Jones, 'The British Experience with Nuclear-Powered Submarines: Lessons for Australia', August 2025
<https://nuclear.foe.org.au/wp-content/uploads/Deere-Jones-nuclear-submarine-report-final-August-2025.pdf>

storage and disposal of UK intermediate and high level waste.

It is important to acknowledge Australia's poor history regarding radioactive waste disposal facilities. As former Senator Rex Patrick points out, "Australia has been searching for a site for a National Radioactive Waste Management Facility (NRWMF) site since the 1970s; and after 50 years, it still hasn't found a spot on which to safely establish such a repository."¹⁵ Several attempts have been made, but they have been opposed by the Traditional Custodians, as well as the wider public. The *United Nations Declaration on the Rights of Indigenous Peoples* states:

States shall take effective measures to ensure 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.¹⁶

This principle has not been followed in the search for a National Radioactive Waste Management Facility. Now the Commonwealth Government is seeking to commit Australia to storing and disposing of highly radioactive long-lived spent nuclear fuel from nuclear submarines. In the event that Australia does acquire nuclear powered submarines, any future disposal site selection process should adhere to this principle. However, it should not be taken for granted that Australia will be able to find willing communities to host a site, especially considering that several State and Territory governments have laws or policies opposing the disposal of nuclear waste in their jurisdictions.¹⁷ The Commonwealth should respect such prohibitions. It should not take the view that it can just ride roughshod over them.

Australia is not alone in this problem. Eighty years since the first atomic bomb test and seventy years since the world's first nuclear power station commenced operation, no country in the world has succeeded in disposing of its civilian or military spent nuclear fuel. Finland is the most advanced in this regard, with construction of a repository nearing completion. Most countries have not even reached the stage of selecting a site.

3. Health and Safety

Much as the United States Navy likes to claim that its nuclear-powered submarines are safe,¹⁸ the fact is that the longer they operate the more highly radioactive material accumulates in their reactors. Unlike civilian nuclear power plants, which have some of their spent fuel removed during regular outages, US and UK designed submarines, which use highly enriched uranium and do not

¹⁵ Rex Patrick, 'Nuclear waste. Fifty years of searching, still nowhere to dump it.' *MichaelWest Media*, Dec 15, 2023

<https://michaelwest.com.au/nuclear-waste-fifty-years-of-searching-still-nowhere-to-dump-it/>

¹⁶ *United Nations Declaration on the Rights of Indigenous Peoples*, Article 29.2.

¹⁷ Emily Gibson, 'Current prohibitions on nuclear activities in Australia: a quick guide', Parliamentary Library, 30 May 2024

https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/pubs/rp/rp2324/Quick_Guides/NuclearActivitiesProhibitions

¹⁸ *Fact Sheet on U.S. Nuclear Powered Warship (NPW) Safety*, April 2006

<https://www.mofa.go.jp/region/n-america/us/security/fact0604.pdf>

require refuelling, keep accumulating radioactive material for the life of the submarine. Therefore, even though submarine reactors have a lower power output than standard civilian reactors, after they have been operating for a while they accumulate a substantial inventory of spent fuel.

It is not possible to guarantee that some of that radioactive material will not be released into the environment, but, under the terms of the proposed *Agreement*, liability is foisted onto Australia. Article XX, part B states:

The Receiving Party waives all claims against the Providing Party for any liability, loss, costs, damage or injury incurred by the Receiving Party (either directly or by virtue of any claim by a Third Person against the Receiving Party) arising out of, related to, or resulting from activities that are materially connected to the transfer of Equipment and Material or the provision of services to the Receiving Party on a government-to-government basis (including the design, manufacture, assembly, transfer or use of any Equipment and Material transferred or to be transferred, and any services provided or to be provided, on a government-to- government basis), pursuant to Article XIV of this Agreement.

So even if the fault lies with the UK, the liability, which could be huge, lies with Australia. No government should accept such a risk.

Emergency planning is necessary to respond to potential accidents. In the case of port visits by foreign nuclear vessels, organisations including ARPANSA, the Department of Defence, and State and Territory authorities each play a role in planning and responding to accidents involving the release of radioactive material.¹⁹ According to the Department of Defence,

1.4 The Australian Government requires contingency arrangements to be in place at all Australian ports visited by NPWs and also requires that there be the capability to undertake radiation monitoring of the port environment. These arrangements are formulated to cover two potential release mechanisms, which are failure or malfunction of radioactive waste control systems within the vessel and an accident involving the reactor plant.²⁰

It is good that they acknowledge two potential release mechanisms. However, one mechanism that is not considered is the case of a nuclear vessel being attacked by a hostile foreign power. As we witness the attacks on the Zaporizhzhia Nuclear Power Plant in Ukraine, we are forced to realise that attacks on nuclear facilities are not confined to the realm of fantasy. Inevitably a hostile power (be it China, or Russia, or some other country in future) would perceive Australian nuclear powered submarines operated in alliance with the United States and the United Kingdom as a threat. We cannot rule out the possibility that such a hostile power might one day decide to attack an Australian nuclear powered submarine, or a US or UK nuclear vessel while it is in an Australian port or in waters near the Australian coast.

Even if the probability of a nuclear accident is low, the consequences could be catastrophic. The fact that there are grave risks is essentially acknowledged in the high 'permissible radiation

¹⁹ Department of Defence, 'Defence Operations Manual (Opsman 1): Visits to Australia by Nuclear-Powered Warships', Edition 11, 2023

²⁰ Ibid.

dose[s]’ envisaged under the existing emergency response plans.^{21,22} There are already risks involved in accepting visits by foreign nuclear ships. Fortunately, there have been no nuclear vessel visits to Adelaide, where Friends of the Earth Adelaide is based, so there has been no need to develop emergency plans for this contingency. We would like to keep it that way. For that reason, we oppose the declaration of Osborne as a ‘designated zone’ for nuclear submarine construction. The claimed benefits (which are mostly illusory) are not worth the risk.

4. Waste of money and human resources

The projected cost of AUKUS is extraordinary.

The costs of the submarine component of AUKUS are estimated at \$368bn through to the 2040s; and the total cost also includes \$3bn to be transferred to the USA to help with its current domestic submarine production difficulties (Creighton 2023).²³

We live in a time of multiple crises: for example, a failing health system, lack of housing, energy system transformation, climate change and degradation of the environment. All of these crises are security issues. The security of ordinary Australians is compromised when they can’t get a hospital bed, or find a home to live in, or pay their electricity bill, or enjoy the fruits of a sustainable environment. All these security crises could be greatly ameliorated by the wise use of \$368 billion. On the other hand, nuclear-powered submarines won’t even make us safer from attack (refer discussion above), let alone solve any of the real security issues faced by Australians on a daily basis.

Politicians like to claim that the submarine project will create jobs.

A government press release in March 2023 claimed that the jobs in South Australia arising from the AUKUS deal would be fairly evenly divided between 4,000 workers employed to design and build the infrastructure at Osborne (Port Adelaide) and a further 4,000 to 5,500 to build the actual submarines. The AMWU sees around 5,000 workers being needed to build, maintain and repair the submarines when the build is scheduled to start in the 2040s. Spread over more than a quarter of a century, this is not hugely impressive. Furthermore, as John Quiggin (2023) pointed out, at current estimates, this works out at roughly \$18 million per job.²⁴

Spending this money on health, housing, renewable energy and the environment would create many more jobs at the same time as addressing the real sources of insecurity for Australians now and in the foreseeable future. Furthermore, it is not just a matter of the money, but also the

²¹ ARPANSA, ‘Guide for Radiation Protection in Emergency Exposure Situations – Planning, Preparedness, Response and Transition’, Radiation Protection Series G-3 Part 2, 30 May 2019

²² David Noonan, ‘Labor imposes AUKUS nuclear submarines while failing to inform the affected SA community of the health risks they face in a potential reactor accident’, 29 July 2024
<https://nuclear.foe.org.au/wp-content/uploads/Noonan-Health-Risks-in-an-AUKUS-N-Sub-Reactor-Accident-Briefer-29-July-2024.pdf>

²³ Al Rainnie, 2024 ‘AUKUS and Jobs’, *Journal of Australian Political Economy*, No. 92, pp. 217-23.

²⁴ Ibid.

diversion of skills that unwise spending leads to.

For Port Adelaide/Osborne, the lesson is that it would be wise to treat all claims regarding job growth and related local economic development with a large pinch of salt. South Australia, like the rest of the country, is facing a massive skills shortage. A 2023 report from Jobs and Skills Australia (JSA 2023) argued that Australia would need more than two million workers in the building and engineering trades by 2050 and more than 32,000 more electricians by 2030. A development focussed entirely on producing nuclear submarines to reinforce a growing Cold War is going to suck skilled workers from other vital sectors.²⁵

5. Conclusion

The proposal for Australia to acquire nuclear powered submarines from the US and the UK, was conceived in secret and presented as a *fait accompli* to the Australian public by then Prime Minister Morrison. After taking a few hours to collect its thoughts, judging that so close to an election it couldn't afford to be seen to be weak on Defence, as a matter of political expediency the then Labor Opposition accepted the deal, even though it made no sense from a security perspective and represented a massive opportunity cost for every Australian for decades. The proposal for Australia to acquire nuclear powered submarines should be rejected on security, safety, nuclear non-proliferation, environmental and economic grounds. The *Australia - UK Agreement* should not be signed.

Philip White
For Friends of the Earth Adelaide

²⁵ Ibid.