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IPAN's Vision: An Independent and Peaceful Australia

IPAN Patrons: Emeritus Professor Ian Lowe AO & Kellie Tranter Lawyer & Human Rights Activist

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Dr Gillian Hirth, CEO
Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)
PO Box 655 MIRANDA, NSW 1490

Submission re: Radiological safety of proposed Controlled Industrial Facility (CIF) on people and the environment

Notice of intention to make a decision under section 32 of the Australian Radiation Protection and Nuclear Safety Act 1998 (the Act) regarding the application for a facility licence by the Australian Submarine Agency (ASA) to **construct a controlled facility**.

Name of facility: Controlled Industrial Facility

Type of facility: Prescribed Radiation Facility

Proposed location: HMAS Stirling, at Meeandip Garden Island, Rockingham WA

Dear Dr Hirth

The Independent and Peaceful Australia Network (IPAN) is a national body comprised of peace organisations, faith organisations, trade unions and environmental and anti-nuclear groups. IPAN campaigns for an Australia that acts independently of foreign influences and alliances in the best interests of the Australian people, seeking and promoting peaceful and mutually beneficial relations with all countries.

IPAN has been vocal in its opposition to Australia's acquisition of nuclear-powered submarines. We regularly contribute submissions to national inquiries and consultations related to peace, defence and foreign policy matters. This includes raising concerns regarding nuclear energy and nuclear waste - including making a submission in February 2024 regarding the Submarine Rotational Force – West (SRF-West) priority works at HMAS Stirling, WA.

IPAN and many of its member organisations (especially those in Western Australia) have closely monitored developments related to the AUKUS nuclear submarine plan. Given that the operations earmarked to occur at the proposed facility will be interfacing with vessels owned and operated by AUKUS partner nations, this is of great relevance to IPAN's work as a peace network.

IPAN has a critical interest in the regulatory regime for managing and temporarily storing low level nuclear waste arising from Australia's intention to acquire nuclear-powered submarines - specifically, the waste generated from in-water maintenance of the US and UK nuclear powered submarines on rotation at HMAS Stirling from 2027 as part of the AUKUS Submarine Rotational Force-West (SRF-West) program.

The application for site construction is therefore of enormous interest and concern to IPAN and its members and this submission results from our concerns regarding the radiological safety of the proposed facility on people and the environment.

IPAN is concerned about the capacity of the ASA to meet the stringent requirements that must be fulfilled throughout the lifecycle of the facility. Despite the following assurances provided by ARPANSA in their consideration of public submissions ([fact sheet p.5](#)), IPAN has identified a number of areas of concern in the application and, as detailed below, we do not accept the following:

'ARPANSA is satisfied that nothing in the public submissions relating to radiological safety of people or the environment indicates the proposed facility could not be constructed, operated and decommissioned in a way that provides assurance of the radiological safety of the workers, the public and the environment.'

'ARPANSA has not identified any reason to conclude that the waste at the CIF cannot be managed safely over the proposed lifecycle of the facility and acknowledge that ASA have contingency plans in place if required.'

Our concerns regarding the radiological safety of the Controlled Industrial Facility (CIF) licence applications as prescribed on people and the environment are summarised below as follows:

1. General comments and concerns
2. Environmental impacts related to radiation
3. Socio-economic impacts related to radiation
4. Political impacts related to radiation
5. Health impacts related to radiation

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1. General comments and concerns

Although the consultation asks for public feedback about the construction licence application, no details of the actual construction of the Controlled Industrial Facility have been made publicly available. Given this absence of all necessary information, IPAN is simply unable to assess if the guidelines for handling radioactive waste would be followed or to provide feedback on the actual construction of the facility.

The [Radiation Protection](#) background document (p.3) states that 'the CIF is to be constructed in such a way that, once operational, unplanned releases of radiological material from the CIF is to be eliminated or mitigated by the design'.

Notwithstanding the fact that the Design Principles Applied are documented in the [Technical Overview](#) (p.5), the details of the actual construction of the CIF are not publicly available, therefore IPAN is simply unable to assess if the design features meet the standards required to address unplanned releases of radiological material.

Again, while the [Technical Overview](#) document (p.6) states that the 'CIF is to be constructed in such a way that, once operational, unplanned releases of radiological material from the CIF is to be eliminated or mitigated by the design, this cannot be independently verified at this stage, without the details of the actual construction of the CIF.

IPAN and its members also believe that the decision for Australia to be a receptacle for other country's nuclear waste was never put to the Australian people in the first place. There was no opportunity to vote on this policy – it was simply thrust on the Australian [people and the Federal opposition at the time.

In addition, in relation to public consultation for the areas affected - the area that it was advertised through was only a tiny fraction of the total areas affected by problems¹. All of the Perth Metropolitan areas and right across WA, should have been included and this issue affects everybody. as this affects us all. Perth is only 20 km from the sites, and Mandurah to the other side. the same. People in those areas are in the majority still unaware of what is planned for them As is most of WA. Something like this should have been a state decision, a national decision.²

2. Environmental impacts related to radiation

Concerns re disposal of radioactive waste

Of significant concern to IPAN is the lack of an identified Commonwealth disposal pathway for radioactive waste in Australia and that any radioactive waste storage is only an interim measure. The plans state that '*Low-level radioactive waste will be permanently disposed of at an authorised national waste management repository*' (see [Radiation Protection](#) p.10). However, no such 'authorised national waste management repository' currently exists and the Australian Government and Department of Defence have yet to confirm a permanent disposal facility for this radiological waste.

IPAN is therefore very concerned about proposed plans to store low-level nuclear waste for a given period and then to transport this waste to a *national waste management repository*'. During ARPANSA's public consultation webinar held recently it was stated that the life of the CIF would be 40 – 50 years. The fact that there is currently no authorised national waste management repository in sight raises major questions about the proposed 'temporary' storage. This is especially the case given that no contingency plans have been made evident.

Misleading information from the ASA regarding Low Level Waste

In addition to the concerns expressed above, IPAN believes that a statement made in a May 2024 ASA site application brochure to the effect that the nature of the low-level waste involved was 'similar to radioactive waste from hospitals' is very misleading. This statement gives an impression that all low-level waste is safe and short lived. The majority of nuclear waste from hospitals is either very short lived waste (VSLW) or very low level waste (VLLW), both of which are disposed of in landfill after a few months storage³.

In fact, some low level waste from naval nuclear submarines actually requires isolation from the environment and people for 300 years.

The ASA would surely be well aware that radioactive waste from submarines has different disposal requirements to radioactive waste from hospitals and research organisations. This makes such a misleading statement extremely concerning. Neither does it foster any trust or faith in the capability of the ASA to comply with all the incredibly strict practices essential for the safe and secure management of a CIF.

¹ [Email correspondence with Lee Patrick, Freelance Journalist, WA 2025](#)

² [Email correspondence with Lee Patrick, Freelance Journalist, WA 2025](#)

³ [Australian Submarine Agency's credibility called into question - Medical Association for Prevention of War \(Australia\)](#)

There are no details available of the radioisotopes to be handled at the facility so IPAN is unable to assess the CIF containment requirements, including storage facilities for longer lived isotopes.

Australia's poor history with existing radioactive waste management and siting

Australia has a poor history with existing radioactive waste management and siting and IPAN highlights serious concerns about a lack of clear safety standards for nuclear waste. Consultation and community consent would be fundamental to any siting of an authorised national waste management repository, and the social licence for such cannot be taken for granted.

See also **3. Socio-economic impacts related to radiation** below.

Risks to ecology and cultural sites

There are also real concerns regarding the impact of the dredging intended to be carried out, as well as the enhanced risk of escape of radioactivity, on the ecology of Cockburn Sound and the land adjacent. In addition, there are many cultural sites at risk. This is particularly concerning especially when container ships share the same route as nuclear submarines through Cockburn Sound.⁴

Threats to the little penguins during construction of the CIF:

The little penguin population on Meeandip is thought to be genetically different to little penguin groups on other islands. This is likely to make the Meeandip population endemic and threatened. Light pollution, noise disturbance, and increased human activity near nesting sites could further threaten this vulnerable species.

Need for real time monitoring by the environmental radiological monitoring program

IPAN believes that there needs to be real time monitoring provided by the environmental radiological monitoring program.

ARPANSA documentation ([Environmental Protection](#)) states (p.4) that baseline environmental radiological testing will occur before CIF construction begins and that there will be an ongoing environmental radiological monitoring program established to assess any deviations from background radiological levels.

While there will be annual reports available to the public reporting on the results of this monitoring, IPAN believes it is critical that there also be real time monitoring. We believe this will be even more critical once the regulatory body comes under the jurisdiction of the Department of Defence and reports directly to the Minister of Defence. Real time monitoring will be critical for transparency and accountability to the public and ensuring that any matters arising are dealt with immediately.

Additional concerns re monitoring

Because the CIF will actually be US Naval property and because of its nuclear purpose, no one including representatives of the United Nations will have the right to go into the facility without permission. In other words, there is no way the level of waste will be able to be completely monitored; nor can there be independent verification of what is being brought in and out. IPAN believes that such a situation represents a risk to Australia's sovereignty.

Regarding the ability of the UN to monitor the level of waste at the CIF, the reality is that while the UN plays a significant role in nuclear non-proliferation, its access is based on treaties, agreements, and specific mandates. As journalist Andrew Fowler has highlighted in his book, *'Naked'*, as a nuclear armed state, the

⁴ [Chris Johansen, 2025 'AUKUS - the Front Line', ,Chain Reaction Magazine - Friends of the Earth Australia, p.42-43](#)

USA has never been required 'to allow the IAEA to inspect its submarine reactors, with its highly classified propulsion systems.

The International Atomic Energy Agency (IAEA) is the UN body most involved in verifying compliance with non-proliferation agreements, but the IAEA's access to a country is based both on the consent of that country and the specific terms of relevant treaties. If a state chooses not to consent to IAEA inspections, then the ability of the IAEA to verify compliance is limited. It is only where exceptional circumstances apply that the IAEA can intervene without consent, for example where a state might be suspected of violating its non-proliferation obligations and this would also need a specific decision by the Security Council.

As noted by Charles Duelfer, 2002:

*'Unfortunately, as demonstrated by the experience of the UN Special Commission (UNSCOM) and the International Atomic Energy Agency (IAEA) from 1991 to 1998, any weapons inspectors sent into Iraq under the ground rules of the existing UN Security Council resolutions and the existing Iraqi regime are doomed to fail'*⁵

Fowler has also noted if the USA permitted the IAEA to conduct inspections in Australia, it would be a first. But he also highlights that if Australia was able to avoid inspection, there could be a 'dangerous precedent' set, with a country such as Iran potentially being able to run an argument that if Australia can use highly enriched uranium (HEU) to run its nuclear powered submarines and not be in breach of the Nuclear Non-proliferation Treaty (NPT), then why can't Iran. As Fowler states, 'The problem for the IAEA would be to keep track of the HEU in Iran and prevent it being diverted into a nuclear weapon' (Fowler, 2023, p. 154-155).⁶

In addition, IPAN and its members have unanswered questions and concerns regarding the requirement under AUKUS for Australia to take waste from AUKUS partners. In relation to the USA, their policy of "neither confirm nor deny" (NCND) regarding the presence of nuclear weapons on its military assets, including aircraft and ships, is a long-standing practice – and has been accepted by Australian Governments, who are prepared to accept that Australian officials, including government ministers and defence personnel, will not confirm or deny whether US military vessels including nuclear powered submarines in Australian territory carry nuclear weapons.

This creates another issue around waste and weapons grade waste - and there are still concerns in the community about what will actually happen to that high-level radioactive waste from AUKUS partner countries and whether this waste **could** some time in the future be accepted at the facility.

3. Socio-economic impacts related to radiation

In its 2024 Submission to the ARPANSA, re Australian Submarine Agency Licence Application to Site a Prescribed Radiation Facility known as the 'Controlled Industrial Facility,' IPAN highlighted the following:

'There is no assurance the ASA has consulted with the Traditional Owners of Meeandip (Garden Island) and complied with A.29.2 of the UN Declaration on the Rights of Indigenous Peoples: "States

⁵ Charles Duelfer 2002, *The Inevitable Failure of Inspections in Iraq* ARMS CONTROL ASSOCIATION: <https://www.armscontrol.org/act/2002-09/features/inevitable-failure-inspections-iraq> Arms Control Today

⁶ Fowler, Andrew, 'Nuked' The Submarine Fiasco that Sank Australia's Sovereignty 2024

*shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of Indigenous people without their free prior and informed consent.*⁷

The absence of consultation with the Traditional Owners of Meeandip is totally unacceptable. It is absolutely remiss of the Australian Government to allow this to happen on an island of such national significance.

IPAN also highlighted this issue in its 2024 submission to the Senate Standing Committee on Foreign Affairs Defence and Trade Re: Australian Naval Nuclear Power Safety Bill 2023.⁸ This submission cited concerns about a lack of community consultation and consent. These concerns remain vitally relevant, given the impact on residents, the natural environment and the wildlife of Garden Island.

In a visit to Australia in 2023, Marcos A. Orellana, the Special United Nations Rapporteur for Toxics and Human Rights, highlighted the deep disconnect that often arises between a government's perspective on toxics and community narratives concerning the same. He stated:

*'Where the government sees efforts towards stronger regulations to address the risks of chemicals and pollution, communities and civil society denounce the capture of the State for the benefit of mining, oil, gas, agrochemical and other corporate interests'*⁹

Particular concerns were raised about the ability of communities to refuse projects or even to be consulted adequately.¹⁰ Community consultation should always be based on free, prior and informed consent and the absence of such a process is a serious oversight in the Australian Naval Nuclear Power Safety Bill 2023.

Ensuring appropriate community consultation is fundamental to any development concerning future nuclear waste management and regulation. This requirement was echoed by the Special Rapporteur for Toxics and Human Rights in his End of Mission report which noted the importance of Australia adopting free, prior and informed consent in relation to nuclear waste management sites.¹¹

In addition, as noted by Chris Johansen from Stop AUKUS WA and Nuclear Free WA, the ASA has noticed local unease about AUKUS and has therefore attempted for more than a year to gain a social licence from each of the local councils adjacent to Cockburn Sound and their citizenry.¹²

4. Political impacts related to radiation

IPAN is aware that ARPANSA has stated that it is unable to comment on decisions regarding military threats. It is, however, surely incumbent on the ASA to consider such matters. Threats posed by the presence of a nuclear facility are very real, and threats have arisen from the presence of nuclear facilities in other parts of the world.

⁷ Note: This submission will soon be available on the IPAN Website

⁸ IPAN 2024 Submission 2024, <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://ipan.org.au/wp-content/uploads/IPAN-Submission-1-Feb-2024-Australian-Naval-Nuclear-Power-Safety-Bill-2023.docx.pdf>

⁹ Orellana, M, 2023 chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.un.org/sites/un2.un.org/files/eom_-_08_sep_2023_-_final_.pdf

¹⁰ IPAN 2022 Peoples' Inquiry https://ipan.org.au/wp-content/uploads/CHARTING-OUR-OWN-COURSE_softcopylinks.pdf

¹¹ Orellana, M, 2023 chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.un.org/sites/un2.un.org/files/eom_-_08_sep_2023_-_final_.pdf

¹² Chris Johansen, 2025 'AUKUS - the Front Line', *Chain Reaction Magazine - Friends of the Earth Australia*, p.42-43

The permanent presence of US and UK nuclear-powered submarines would make HMAS Stirling a military target. In submissions made to the a People's Inquiry¹³ run by IPAN in 2020-22, Bob Boughton (Submission no. 388) and the ACF (Submission no. 427) referred to the decision for Australia to obtain US or UK submarines as a very dangerous move. Putting nuclear reactors in vessels will make these vessels legitimate targets in any serious conflict and thus invite catastrophic radioactive pollution of the oceans.

At the least, these radiation risks would threaten Cockburn Sound, Shoalwater Bay Marine Reserve and the communities facing Cockburn Sound, Rockingham, Kwinana, Cockburn and Fremantle.

In addition, the fact that large quantities of highly flammable dangerous chemicals are in close proximity to the Stirling as well as the Henderson and Fremantle areas, that inevitably makes the area even more vulnerable to being a target for attack by any country who feels threatened.¹⁴

IPAN believes that it is imperative that Australia learns from threats that have arisen in other parts of the world from the presence of nuclear facilities. As a submission from the Australian Conservation Foundation (ACF), to the 2022 IPAN People's Inquiry (Submission no. 427) highlighted, even in the absence of the Russian forces' use of nuclear weapons, the current conflict in Ukraine has seen 'the weaponization of nuclear facilities and the threat of an uncontrolled radiation release.'¹⁵ Put simply, Australia should not allow such a risk to be present on our shores.

IPAN accordingly has grave concerns that establishment of the SRF-West program could result in the facility in question being targeted by hostile military forces.

Alarming, there are also no evident contingency plans related to radioactive waste in the event of an enemy attack. This should be of enormous concern to all Australians.

5. Health impacts related to radiation

IPAN has significant concern for communities in the vicinity of sites at which nuclear submarines will be stationed.

There needs to be accurate information with full transparency provided to the public concerning the capabilities of these craft. Concerns about the supposed 'relative harmlessness' of LLW from nuclear submarines have been noted above. As Stop AUKUS WA and Nuclear Free WA member, Chris Johansen, has noted, 'the potency of this nuclear submarine radioactive waste can only be assessed if we know the identity, quantity and form of the isotopes involved – [all of which is] likely to remain 'top secret' information'.¹⁶

Johansen has also stated that 'Other concerns about the accidental escape of radioactivity include transport procedures of waste from Henderson to CIF or from CIF to a permanent site (when identified), natural disasters (e.g. the site of the CIF is near the ocean just a few metres above sea level), initial inexperience of

¹³ IPAN 2022, *Charting Our Own Course ,Findings of the Peoples' Inquiry*, https://ipan.org.au/wp-content/uploads/CHARTING-OUR-OWN-COURSE_softcopylinks.pdf

¹⁴ Email correspondence from Lee Patrick, Freelance Journalist, WA, July 2025

¹⁵ IPAN (IPAN), 2022 *Peoples' Inquiry* https://ipan.org.au/wp-content/uploads/CHARTING-OUR-OWN-COURSE_softcopylinks.pdf

¹⁶ Chris Johansen, 2025 'AUKUS - the Front Line', *Chain Reaction Magazine - Friends of the Earth Australia*, p.42-43

Defence personnel in handling radioactivity, and the universal reluctance of military authorities to inform the adjacent public of internal accidents in a timely manner.’¹⁷

IPAN also has concerns for first responders in the event of a nuclear accident. ARPANSA’s own ‘Guide for Radiation Protection in Emergency Exposure Situations’¹⁸ and ‘Nuclear powered vessel visit planning’¹⁹ set out the studies and Emergency response measures that are to be put in place. The ARPANSA Guide authorises very high ionising radiation dose exposures to emergency workers in tasking them to undertake ‘urgent protective actions’ on site at a nuclear accident, at a dose of up to 50 milliSieverts (mSv), and exclude women emergency workers because of the health risk) in event of development of "catastrophic" circumstances in a nuclear reactor accident (Note: This also applies to Navy nuclear submarines). 50 milliSieverts (mSv) is 50 times in excess of the recommended civilian maximum allowed dose of 1 mSv per year. There are very real risks therefore to first responders in the event of nuclear accident as well as the follow up treatment that would ensue.²⁰

In a ‘Reference Accident’ the local population may face evacuation and may require ‘decontamination’ and medical treatment. A wider zone where ‘the surrounding population may be subject to hazards’ is described as having a radius of several kms. In the UK this wider zone of emergency response measures can extend out to 5 km. ARPANSA and Defence also require studies of a local population out to 15 km from a nuclear submarine mooring.²¹

For all of the reasons outlined in this submission, IPAN calls for ARPANSA not to grant a facility licence to the ASA to construct the Controlled Industrial Facility.

Thank you for considering the range of concerns we have raised in this submission.

Yours sincerely



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¹⁷ Chris Johansen, 2025, ‘AUKUS - the Front Line’, *Chain Reaction Magazine - Friends of the Earth Australia*, p.42-43

¹⁸ <https://www.arpansa.gov.au/regulation-and-licensing/regulatory-publications/radiation-protection-series/guides-and-recommendations/rpsg-3>

¹⁹ <https://www.arpansa.gov.au/research/radiation-emergency-preparedness-and-response/visits-by-nuclear-powered-warships>

²⁰ David Noonan, 2025 ‘AUKUS impact assessment report ignores nuclear submarine risks in SA’ *Chain Reaction Magazine - Friends of the Earth Australia*, p.42-45

²¹ David Noonan, 2025 ‘AUKUS impact assessment report ignores nuclear submarine risks in SA’ *Chain Reaction Magazine - Friends of the Earth Australia*, p.42-45