

**Public Submission 2 – Mr Dave Sweeney,
Australian Conservation Foundation
(ACF)**

[REDACTED]

From: Dave Sweeney [REDACTED]
Sent: Sunday, 14 November 2021 5:07 PM
To: ARPANSA ILWCI Submission
Subject: CM: ACF comments on ARPANSA's consideration of ILW extended storage at ANSTO
Attachments: ACF PWC ANSTO submission - July 2021.docx; ARWA Napandee comment - October 21.docx

Australian Conservation Foundation input to ARPANSA's consideration of enhanced ILW storage capacity at ANSTO's Lucas Heights campus - November 2021

ACF welcomes this initiative and the recent support provided to this from the federal Parliament's Public Works Committee review.

The Public Works Committee formally approved a plan to increase radioactive waste storage capacity at the ANSTO nuclear site at Lucas Heights in southern Sydney.

The Committee has confirmed that Australia's most serious waste can be securely stored at ANSTO for 'between 40 to 50 years.'

Lucas Heights is a more cost effective option for extended interim storage and it is better resourced for ILW management than the planned facility at Kimba.

Storage at ANSTO makes much more sense than the current federal plan to haul this waste to Kimba without any plan for what happens next.

It is ACF's view that the Kimba plan has always been sub-optimal and contested - now it is also unnecessary.

Taking the waste to Kimba is a political choice, not a radiological imperative.

This important initiative provides us with the time to choose a more measured and responsible approach - starting with increased ILW storage capacity at ANSTO.

Please find attached:

- (i) ACF submission to the Public Works Committee review into extended ILW storage at ANSTO
- (ii) (ii) ACF comment to Minister Pitt re the planned NRWM Facility at Napandee in regional SA

Also please find these linked documents for your consideration:

[ACF's 3-page background brief on the federal radioactive waste plans](#)

[ACF's submission on the National Radioactive Waste Management Amendment Bill](#)

[Measure twice, cut once: Advancing responsible radioactive waste management in Australia.](#)

Should you wish to further discuss or clarify any aspect of this submission please contact

Dave Sweeney - Australian Conservation Foundation nuclear policy analyst via [REDACTED]
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DAVE SWEENEY | Nuclear Free Campaigner

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*We acknowledge the Traditional Owners of this country and their continuing connection to land, waters and community.
We pay respect to their elders past and present and to the pivotal role that Aboriginal and Torres Strait Islander people continue to play in caring for country across Australia.*

**Attachment 1 -Australian Conservation
Foundation Submission to the Public Works
Committee review into extended Intermediate
Level Waste Storage at ANSTO**



**AUSTRALIAN
CONSERVATION
FOUNDATION**

**ACF submission to the Public Works
Committee inquiry into the Australian
Nuclear Science and Technology Organisation
(ANSTO) Intermediate Level Solid Waste
Storage Facility at Lucas Heights**

**July
2021**



**AUSTRALIAN
CONSERVATION
FOUNDATION**

Attention: Committee Secretary
Public Works Committee
Parliament House
Canberra ACT 2600

By email to: powc@aph.gov.au

Dear Members,

The Australian Conservation Foundation Inc (ACF) welcomes this opportunity to contribute to the Committee's consideration of the Australian Nuclear Science and Technology Organisation's Intermediate Level Solid Waste Storage Facility at Lucas Heights. ACF would further welcome presenting on the issues identified in this submission to any Committee hearing.

ACF is Australia's oldest national environmental organisation, founded in the mid-1960s with the support of eminent Australians, the Australian community and the Australian Government. ACF is strictly non-partisan and we are proud of our political independence. Over the past decades our independent advocacy has helped drive extraordinary commitments from governments of all political persuasions as well as from business and communities.

Since its creation ACF has been the leading national advocate for the environment. ACF protects, restores and sustains Australia's environment through research, consultation, education, partnerships and advocacy.

ACF has a long history of engagement and advocacy to promote responsible radioactive waste management, including active input into the Independent Advisory Panel that helped inform the current iteration of the National Radioactive Waste Management Project.

ACF maintains that radioactive waste needs to be managed safely for the long-term in accordance with international best practice, legal requirements and a clearly articulated economic need.

There has been no compelling public health, radiological or national interest case made for the planned national radioactive facility near Kimba in regional South Australia, especially in relation to the proposed management of Intermediate Level Waste (ILW).

Extended interim storage at existing federal facilities at ANSTO is possible, prudent and – coupled with a public options analysis - is far more likely to realise a lasting solution to our continuing radioactive waste management challenge.



ACF supports this planned expenditure at ANSTO and maintains that ILW should remain securely stored at ANSTO until an agreed and evidence based long term management site and strategy is developed.

There is no credible public health, environmental or fiscal rationale or benefits from double-handling ILW. The building industry has a fundamental adage of ‘measure twice, cut once’. This prudent and proven approach should also underpin Australia’s management of ILW radioactive waste.

Scale and context

Radioactive waste management in Australia has been a contested, divisive and ultimately non-productive area of public policy for decades. The timing and circumstances are now conducive for adopting a revised approach that is more likely to advance responsible national radioactive waste management and agreed and lasting outcomes.

ACF has identified several key foundation principles for responsible radioactive waste management in Australia. We maintain that radioactive waste management should:

- not impose any federal facility on an unwilling community or jurisdiction
- be consistent with state and territory laws and leading international industry practise
- reduce unnecessary double-handling of Intermediate Level Waste
- ensure high storage standards at the two secured federal sites where most of the waste is currently sited
- recognise the ANSTO nuclear facility at Lucas Heights is the best place to manage Australia’s worst waste until there is an agreed and integrated management approach
- inclusively and robustly examine the full range of future long-term management options.

Australia holds around 4250 cubic metres of low-level radioactive waste (LLW) and 655 cubic metres of long-lived intermediate level waste (ILW). Around 95% of this material is currently stored at two secured Federal sites. Nearly all of Australia’s intermediate level waste is held where it was created at the Australian Nuclear Science and Technology Organisation’s (ANSTO) Lucas Heights nuclear reactor facility in southern Sydney. This material is Australia’s highest-level radioactive waste and poses the most significant management challenge. Much of the low-level waste is at the Defence Department’s Woomera site in northern South Australia.

Australia’s highest-level radioactive waste is secured at the Lucas Heights nuclear reactor facility in southern Sydney and can be safely stored there for “decades to come.”



The National Radioactive Waste Management Project

The current preferred federal plan involves (i) emplacing containerised low-level radioactive wastes (LLW) and covering these with earth and (ii) the extended above ground storage of intermediate level waste at a single site near Kimba on South Australia's Eyre Peninsula.

The LLW would be disposed of in-situ and there is no intention to recover this material.

There are plans to remove the higher-level ILW waste for future deep geological disposal at a location yet to be determined after a period of between 20 to 100 years.

The current national approach of double-handling intermediate level waste is not consistent best international practice.

Instead, it is based on unnecessary transport and handling and replacing above ground extended interim storage at ANSTO for above ground extended interim storage at a less resourced regional facility.

Former Resource Minister Matt Canavan identified the Napandee site near Kimba as the government's preferred waste location in February 2020.

Since this time the federal government has unsuccessfully sought to advance changes to Australia's radioactive waste laws to both cement this site and remove this from any independent legal review.

After being stalled in the Parliament for over a year due to concerns over the loss of judicial review revised legislation that restored legal review options was passed in June 2021.

There is considerable Aboriginal and wider community concern and opposition to the waste plan.

Existing state legislation, the SA Nuclear Waste Facility (Prohibition) Act 2000, makes the federal plan unlawful in SA and the SA Upper House has called for the project not to go ahead.

While the federal government could override any state legislative roadblocks, doing so would be inconsistent with leading practise for facility siting and open to regulatory and procedural contest.



The case for a revised approach

Previous federal attempts over many years to impose a radioactive waste dump on multiple sites in regional South Australia and the Northern Territory have all failed and there is growing community and stakeholder concern over the Kimba plan.

Leading civil society organisations including environment, public health, Indigenous and trade union groups all support an expert, open and independent Inquiry into the full range of radioactive waste management options.

Radioactive waste remains a concern for thousands of years and its management demands the highest quality decision making and information.

Enhanced and extended interim storage at the two current federal facilities – particularly at ANSTO – offers a policy circuit-breaker and, coupled with an options review, is the best way to identify and advance lasting and responsible radioactive waste management.

Extended interim storage of Australia's intermediate level waste at Lucas Heights is the most prudent and credible management option, given that:

- the site is already home to the most problematic wastes as ANSTO is already both the continuing producer of and home to virtually all of Australia's higher level radioactive waste
- ANSTO has certainty of tenure, a secure perimeter and is monitored 24/7 by Australian federal police
- the waste will be actively managed as operations at the site are licensed for a further three decades
- it keeps waste management on the radar of the agency with the highest level of nuclear expertise and radiation monitoring and response capacity in Australia
- doing so avoids the unnecessary economic costs, risks and duplication of double-handling ILW waste
- ANSTO storage helps reduce any political or external pressure to fast-track a 'remote' site for a national facility and increases the prospects to advance responsible management
- ANSTO and the federal nuclear regulator ARPANSA both acknowledge that extended ILW storage is possible and secure
- there are no regulatory or radiological impediments to extended interim storage at Lucas Heights



After community opposition and Federal Court action ended an earlier proposed waste site at Muckaty in the Northern Territory, ANSTO constructed and commissioned a new purpose-built store dedicated to housing reprocessed spent nuclear fuel waste which returned from France in late 2015.

This Interim Waste Store has a conservative design life of 40 years, its licence is not time limited and it has (if required) regulatory approval to store these reprocessed wastes ‘until the availability of a final disposal option’.

Extended interim storage at ANSTO has been previously identified as a credible and feasible option by ANSTO, nuclear industry lobby group the Australian Nuclear Association and, most importantly, the federal nuclear regulator, **the Australian Radiation and Nuclear Safety Agency (ARPANSA) CEO told a Senate Inquiry in June 2020 that intermediate level “waste can be safely stored at Lucas Heights for decades to come.”**

At the same Inquiry ARPANSA confirmed it “is aware that some stakeholders have interpreted ARPANSA’s decisions regarding the IWS as a requirement for relocation of the waste stored in the IWS, even suggesting that there is an urgent need for relocation. This is not correct. ARPANSA has not raised safety concerns regarding storage of waste at the IWS.”

ANSTO’s facility is prohibited from becoming a permanent disposal site, however there are no comparable constraints on it as a site for extended storage. Importantly, this approach also provides the ability to have an evidence based and open review of the best long-term management options.

Conclusion

ANSTO has the capacity to continue to securely manage and store this ILW waste material for many years. This is important given ANSTO’s acknowledgement that any future national radioactive waste facility “is unlikely to commence receiving waste until after 2030” (ANSTO, 2).

ANSTO’s submission to this PWC review further states:

This interim facility is the safest and most cost-effective option to secure waste and to manage it safely until the longer-term management solution is available.....ANSTO has the capabilities required to commission and oversee the construction of this facility and a track record of more than 60 years of safe and effective operation of storage facilities of this nature and management of existing wastes of this type (ANSTO submission, 3.3).

ANSTO further maintains that the proposed ILW storage “*design has been successfully implemented on the ANSTO site in the past, with the existing waste storage facility still successfully in operation*” (ANSTO, 5.2.1).



ANSTO further states that *“the facility will be protected by the same modern surveillance systems as are employed across the rest of ANSTIO and will be monitored continuously on site by Australian Federal Police Protective Services officers”* (5.12)

ANSTO concludes that the *“proposed facility is based on an existing design, which has been safely operating on site at Lucas Heights for decades. Modern control measures and construction techniques **will make the new facility even safer and more robust than the existing proven design upon which it is based.**”* (ANSTO, 7.7, our emphasis)

Such an approach with the extended interim storage of Australia’s highest-level wastes at ANSTO provides an opportunity to re-calibrate the national approach to this issue and advance a genuine assessment of longer-term management options.

The current federal proposal is one of considerable pain for scant gain and merely kicks the can further down the road. In the interests of all Australian’s ACF urges the Government to choose a different and more inclusive path to advance lasting and responsible radioactive waste management in Australia.

Nothing about nuclear waste is clean or uncomplicated but extended interim federal storage at existing sites, coupled with a wider robust public review of the full range of longer-term management options – is the approach that is most likely to advance and realise lasting and responsible radioactive waste management in Australia.

A measured, transparent and evidence-based approach to radioactive waste management provides our best chance to achieve a credible and lasting result for us and all future Australians. This is best made possible through the adoption of extended interim ILW storage at ANSTO until a lasting management site and strategy is realised.

If you have any questions in relation to this submission or to organise an ACF presentation to the Committee, please contact ACF nuclear policy analyst Dave Sweeney.

Yours sincerely,

Dave Sweeney

[Redacted signature]

Phone: [Redacted phone number]

**Attachment 2 -Australian Conservation
Foundation Comment to Minister Pitt re the
Planned NRWMF at Napandee in regional SA**



ACF comment on the proposed National Radioactive Waste Management Waste Facility (NRWMF) site at Napandee (Kimba, SA)

October 2021

ACF – background and standing: The Australian Conservation Foundation Inc (ACF) is a national environmental organisation, founded in the mid-1960s with the support of eminent Australians and the wider Australian community. ACF is strictly non-partisan and we are proud of our political independence.

Since its creation ACF has been the leading national environment advocate for the and has worked with governments of all political persuasions as well as from business and communities to protect, restore and sustain Australia's environment through research, consultation, education, partnerships and advocacy.

ACF has a long history of engagement and advocacy to promote responsible radioactive waste management, including active input into the Independent Advisory Panel that helped inform the current iteration of the National Radioactive Waste Management Project.

Deficient and restrictive consultation processes:

ACF is deeply concerned about the highly prescriptive and exclusionary consultation approach taken by the federal government, both in this process and more widely through the history of the NRWM project.

This consultation should be open to all parties with an interest in the issue, not solely a narrowly defined interest in the specific parcel of land proposed for the national facility.

The broader “consultation” process in relation to a national radioactive waste facility has been flawed for numerous years. The Federal Government's apparent fixation on the pursuit of one management model (namely a national radioactive waste facility) at the exclusion of other management options, has resulted in a history of flawed decision-making and legal challenges.

This history is important and needs to be recognised, not replicated. The search for a site has developed such institutional momentum that advancing this has become an end in itself. This has seen the search for a postcode to host a national facility prioritised over any evidence-based assessment of whether a national facility is needed or if the proposed federal model is the best management option.



Radioactive waste management is a complex policy arena. It involves long-lived wastes that pose a significant intergenerational legacy and burden. The material is hazardous with important safety, security and risk considerations and related technical, financial, regulatory and political complexities and costs. The difficulty of the issue is heightened by the long-term nature of the material and the fact that any decision may compromise other future management or development options.

Further, the consultation process in relation to the specific site at Kimba has been deeply flawed. There has been no meaningful engagement of affected: i. Aboriginal peoples; ii. Kimba grain growers; iii. emergency services/first responders; iv. wider regional communities, v. communities along the transport routes between the facilities producing or currently storing nuclear waste and any new facility.

This issue affects a far broader cohort than simply the local community at the possible site. All national stakeholders should have been consulted but have not been.

In relation to the proposed Kimba site, ACF notes that Kimba was initially excluded from the shortlist with the proponent observing strong levels of community opposition and concerns about community cohesion and noting that 'given the level of strongly held opposition, it remains an open question as to how much additional support could be garnered through further engagement'. Kimba was later re-added in a move that has exacerbated community pressures and discord and signalled to many in the community that for the federal government "No" is perceived as 'not yet'.

ACF's view is that a local vote on site selection does not constitute appropriate consultation on site selection for a dedicated national facility with significant inter-generational impacts.

This is particularly the case when Aboriginal stakeholders were substantially not included in that vote. Native Title holders in the affected region have long opposed the current ballot process. The Barngarla Determination Aboriginal Corporation (BDAC) took legal action against the vote associated with the Kimba site selection process in the Federal Court. The Federal Court determined that Barngarla people were neighbours at the Kimba site and were excluded from the ballot. Whilst the approach to the vote under the SA Local Government Act was ultimately held to be non-discriminatory under national discrimination law, the Federal Court's judgment should not be taken as providing any comfort that the ballot, which excluded the Barngarla people, was a legitimate or appropriate way to "consult" with stakeholders or an endorsement that the vote means that consultation has occurred. The fact remains that the Barngarla people were excluded from the vote.

Importantly, when asked, the community response was unanimous rejection. After being excluded from the Kimba Council ballot, the Barngarla Determination Aboriginal Corporation engaged Australian Election Company, an independent ballot agent, to conduct a confidential postal ballot of BDAC members regarding the National Radioactive Waste Management Facility.



The ballot paper asked members: Do you support the proposed National Radioactive Waste Management Facility being located at one of the nominated sites in the community of Kimba? Of 209 eligible voters (all Barngarla native title holders), 83 cast valid “No” votes. Zero “Yes” votes were returned while there was a unanimous “No” vote.

ACF draws the Department’s attention to the profound inconsistency with the proposed Kimba site selection process and current international practise and expectation, including the *UN Declaration on the Rights of Indigenous Peoples* (Article 29) which requires that “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”

This concern alone should be reason enough not to further consider or advance this site.

Radioactive waste management: Radioactive waste management in Australia has been a contested, divisive and ultimately non-productive area of public policy for decades. The timing and circumstances are now conducive for adopting a revised approach that is more likely to advance responsible national waste management and agreed and lasting outcomes.

Radioactive waste needs to be managed safely for the long-term in accordance with international best practice, legal requirements and the highest levels of transparency and evidence.

ACF has identified several key foundation principles for responsible radioactive waste management in Australia. We maintain that radioactive waste management should:

- not impose any federal facility on an unwilling community or jurisdiction
- be consistent with state and territory laws and leading international industry practise
- reduce unnecessary double-handling of Intermediate Level Waste
- ensure high storage standards at the two federal sites where most of the waste is currently sited
- recognise the ANSTO nuclear facility at Lucas Heights is the best place to manage Australia’s most problematic waste until there is an agreed and integrated final management approach
- inclusively and robustly examine the full range of future long-term management options.



Alternative management options:

There has been no compelling public health, radiological or national interest case made for the planned national radioactive facility near Kimba in regional South Australia, especially in relation to the proposed management of Intermediate Level Waste (ILW).

ACF maintains that ILW should remain securely stored at ANSTO until an agreed and evidence based long term management site and strategy is developed. As such ACF is opposed to moves to advance the federal governments proposed national facility at Kimba.

There is no credible public health, environmental or fiscal rationale or benefits from double-handling ILW. The building industry has a fundamental adage of 'measure twice, cut once'. This prudent and proven approach should also underpin Australia's management of ILW radioactive waste.

ACF maintains that there is no proven economic or public health rationale for the selection of the Kimba site under consideration through this consultation process.

There is no justification for the cost or risk of double-handling radioactive material, especially for moving it long distances interstate from a site with proven and high security best practice storage, to a site with lesser institutional management assets

There is no information about transport corridors by which the radioactive waste will be transported, and thus the impacts on communities affected along those transport corridors. This should have been an essential part of any site selection process

There are no criteria for waste acceptance at the site and the proposed Kimba site is not proximate to the site of generation of the majority of nuclear waste (NSW) proposed to be disposed of at Kimba.

With respect to the purported need for medical waste disposal, medical waste is already appropriately managed and will largely continue unchanged from the current 'delay and decay' approach.

Extended interim storage at ANSTO has been previously identified as a credible and feasible option by ANSTO, nuclear industry lobby group the Australian Nuclear Association and, most importantly, the federal nuclear regulator, the Australian Radiation and Nuclear Safety Agency (ARPANSA) CEO told a Senate Inquiry in June 2020 that intermediate level "waste can be safely stored at Lucas Heights for decades to come".

At the same Inquiry ARPANSA confirmed it "is aware that some stakeholders have interpreted ARPANSA's decisions regarding the IWS as a requirement for relocation of the



waste stored in the IWS, even suggesting that there is an urgent need for relocation. This is not correct. ARPANSA has not raised safety concerns regarding storage of waste at the IWS.”

ANSTO’s facility is prohibited from becoming a permanent disposal site, however there are no comparable constraints on it as a site for extended storage. Importantly, this approach also provides the ability to have an evidence based and open review of the best long-term management options.

Public Works committee review: The recent Public Works Committee review, tabled in federal Parliament on 21 October, demonstrated that extended interim storage at the existing ANSTO site is possible, prudent and – coupled with a public options analysis - is far more likely to realise a lasting solution to our continuing radioactive waste management challenge.

The PWC Report demonstrates that extended interim ILW storage at ANSTO provides a clear circuit breaker option for the contested Kimba plan and found that:

- * *The proposal for the Intermediate Level Solid Waste Storage Facility at Lucas Heights has raised little objection from the public, with many submissions supporting the ongoing use of Lucas Heights to store radioactive waste. However, the current proposal has opened up a wider debate about the future of storing nuclear waste in Australia.*
- * *The proposed interim facility will largely replicate the design and functionality of the current waste storage facility at Lucas Heights and will be located near the existing facility 'to allow for operational efficiencies.'⁶ It will accommodate waste (sic) on an interim basis (between 40 to 50 years), before the waste is required to be transferred to a longer term facility.*
- * *The Committee acknowledges that the proposal is an interim solution and that the stored waste would need to be moved to a longer term solution after 40 to 50 years of storage.*
- * *Furthermore, the Committee notes that the current proposal will extend the storage capacity at Lucas Heights for approximately 10 years, and additional storage solutions would need to be sought if a National Radioactive Waste Management Facility has not been opened within that time.*
- * *At the public hearing the Committee asked ANSTO if the Lucas Heights campus had the required space to build an additional interim storage facility if required in the future. ANSTO stated that if required, there was capacity on site to accommodate additional storage space.*

This is a clear acknowledgement that ANSTO has the capacity to continue to securely manage and store this ILW waste material for many years. This is important given ANSTO’s



acknowledgement that any future national radioactive waste facility “is unlikely to commence receiving waste until after 2030”.

ANSTO’s submission to the 2021 Public Works Committee extended storage review outlined:

This interim facility is the safest and most cost-effective option to secure waste and to manage it safely until the longer-term management solution is available..... ANSTO has the capabilities required to commission and oversee the construction of this facility and a track record of more than 60 years of safe and effective operation of storage facilities of this nature and management of existing wastes of this type

ANSTO further maintains that the proposed ILW storage “design has been successfully implemented on the ANSTO site in the past, with the existing waste storage facility still successfully in operation”

ANSTO further states that “the facility will be protected by the same modern surveillance systems as are employed across the rest of ANSTO and will be monitored continuously on site by Australian Federal Police Protective Services officers”

ANSTO concludes that the “proposed facility is based on an existing design, which has been safely operating on site at Lucas Heights for decades. Modern control measures and construction techniques will make the new facility even safer and more robust than the existing proven design upon which it is based.”

Extended interim storage of Australia’s highest-level wastes at ANSTO provides an opportunity to re-calibrate the national approach to this issue and advance a genuine assessment of longer-term management options.

Conclusion

The PWC review makes it clear that the Kimba proposal is a political choice, not a radiological or public health imperative.

The current federal proposal is one of considerable pain for scant gain and merely kicks the can further down the road. In the interests of all Australian’s ACF urges the Government to choose a different and more inclusive path to advance lasting and responsible radioactive waste management in Australia.

Nothing about nuclear waste is clean or uncomplicated but extended interim federal storage at existing sites, coupled with a wider robust public review of the full range of longer-term management options – is the approach that is most likely to advance and realise lasting and responsible radioactive waste management in Australia.

ACF issue contact: Dave Sweeney: [REDACTED]