

14 March 2023

To: SA/NT Assessments Section, Environment Assessments West (WA, SA, NT) Branch,
Department of Climate Change, Energy, the Environment and Water.

Email: EADSAandNTSection@dcceew.gov.au

OPPORTUNITY FOR PUBLIC COMMENT

National Radioactive Waste Management Facility, SA ([EPBC 2021/9128](#))

Draft guidelines for the preparation of a draft Environmental Impact Statement

RE: The scope of EIS Guidelines must expand to cover UNDRIP Article 29 and to assess key public interest feasible alternatives to the proponent's limited EPBC Referral actions.

Dear Delegate to the Minister for Environment and Water, The Hon Tanya Plibersek MP

The scope of the [draft Guidelines](#) must be expanded to cover an array of key public interest options in Radioactive Waste Management including UNDRIP Article 29 and specific key feasible alternatives.

The Department has acknowledged the level of “*ongoing interest in the proposed action*” by inviting comment on Guidelines for the preparation of a draft Environmental Impact Statement (EIS).

This “Opportunity for Public Comment”, the finalised Guidelines, and the resultant EIS process must not be restricted to only assess the proponent's [EPBC Referral](#) actions reflecting ANSTO self-interest.

Draft Guidelines 1.3. Components of the action relevant to the assessment:

DCCEEW will assess all components of the proposed action outlined in the proponent's referral submitted under the EPBC Act.

Recommendation 1: Key public interest options in Radioactive Waste Management warrant EIS level assessment, as feasible alternatives to the proponent's limited EPBC Referral actions:

To not impose nuclear waste onto an unwilling SA community; respect for UNDRIP Article 29; ANSTO's waste producer responsibility to retain ILW on site - rather than double handling with *indefinite* storage at Kimba; ARPANSA to secure State and Territory wastes.

“*Feasible Alternatives*” are generically cited at 3.4; however, alternatives are typically only given token address in EIS and are often effectively dismissed as not serving a proponent's full agenda.

The stated purpose of the Guidelines must be expanded to direct and define the extent of studies and investigations required to adequately assess the impacts and benefits of feasible alternatives.

This is required to facilitate informed public comment & decision making on key feasible alternatives.

Further, the public interest cost / benefit *merits* of nuclear actions are relevant considerations to the scope of this assessment, therefore the Department should not seek to limit public comment:

The purpose of the guidelines is to define the extent of studies and investigations required to adequately assess the impacts of the proposed action. Submissions should be limited to the scope and presentation of the environmental impact statement to be prepared, rather than the merits of the proposed action. (Opportunity for Public Comment, 02 March 2023)

The South Australian community has not been consulted on plans for the NRWMF, a divisive, il-considered proposal that lacks social license in SA and is an affront to democratic rights in SA.

The proponent of the NRWMF is the Australian Radioactive Waste Agency (ARWA), which is a non-independent badged office of the federal Department of Resources.

ARWA has continued an untenable Coalition agenda: to target SA for imposition of nuclear waste storage; to compromise safety, security and community well-being in SA; to override SA Law; to defy the clear opposition of the Barnjarla People; and to ignore State Government concerns and a stated position calling for the Barnjarla to have a '*right of veto*' over a nuclear waste dump on their country.

The new ALP Federal Government must explain how it will over-ride the SA [Nuclear Waste Storage \(Prohibition\) Act 2000](#) - for instance through required issue of a federal Regulation, and should require the EIS process to fully assess the impacts of imposing nuclear waste onto an unwilling SA State community (see p.6, and Rec 2 & 3).

It is unacceptable that the [United Nations Declaration on the Rights of Indigenous Peoples](#) (UNDRIP, adopted by UNGA, Sept 2007), and the Article 29 provision of Indigenous People's rights to "Free, Prior and Informed Consent", are not recognised and respected in the draft Guidelines (see p.7).

It is of concern the draft Guidelines fail to adequately inform the public that the proposed NRWMF is essentially two fundamentally different types of waste facility, to be *co-located* at the same site, which require separate Licensing Approvals from the federal nuclear regulator ARPANSA (see p.8).

ARPANSA has stated these regulatory decision-making processes may reach different conclusions.

A separately required License for storage of Intermediate Level Waste (ILW) near Kimba may not be granted: as it does not have a clear net benefit; it is contrary to community well-being; as 'temporary' (indefinite) ILW Storage at Kimba is not justified; and as it is largely unnecessary given key feasible alternatives already recognised by the federal regulator ARPANSA.

In contrast, extended storage of ANSTO's ILW on-site at Lucas Heights "*over the next decades*" is a warranted public interest measure and an existing Safety Contingency in ARPANSA approvals.

The EIS must recognise ARPANSA's existing feasible alternative for the ANSTO site to continue to safely and securely store ILW "*over the next decades*", and for ANSTO's highly hazardous reprocessed nuclear fuel wastes to be retained on site "*until the availability of a final disposal option*". In these key respects, the proposed ILW Store site at Kimba is then largely unnecessary (see p.9 and Rec 6).

The EIS must prepare a comparative assessment of continued secure on-site storage of ANSTO ILW, with imposed transport & *indefinite* above ground storage at Kimba without a social license in SA.

The proposed NRWMF co-located ILW Store is premised on an il-considered, unassured and arguably untenable plan to double handle ANSTO's nuclear wastes out of safe and secure storage at Lucas Heights, across Australia, and into *indefinite* above ground storage on agricultural land in SA.

The so called NRWMF is not 'National', rather it is predominantly a Commonwealth facility for Cth agency wastes and the Cth should take responsibility to secure its own ILW (see p.10 and Rec 8).

ANSTO is the predominant waste holder & future producer of both ILW and Low Level Waste (LLW), see a Briefing: "[National Inventory of Radioactive Waste shows the Kimba dump is ANSTO's dump](#)".

Rather than impose ANSTO's 97% of the total ILW inventory onto SA, the EIS must assess feasible alternatives to manage the other 3% across non-ANSTO Cth agencies and only minor S/T holdings.

The EIS must be required to assess Commonwealth agencies longer term options to continue to store ILW as alternatives to reliance on a proposed ILW Store at Kimba and assess a rationalisation of ILW holdings between Cth sites and the option for ARPANSA to secure non-ANSTO Cth agency ILW.

ARPANSA should secure State & Territory radioactive wastes rather than impose wastes onto SA:

The EIS must also assess ARPANSA's options to take custody of and secure State and Territory radioactive wastes as a feasible alternative to the proposed NRWMF and as a priority to secure ILW and sealed sources from the Hospital and the Education / Research sectors (see p.11 and Rec 9).

Claims a 'National' facility is somehow needed at Kimba for State & Territory LLW are patently false.

Of a total estimated LLW inventory reported by ARWA, existing and arising over the next 100 years of 13 287 m³ of LLW, only approximately 5 (five) m³ of LLW is attributed to States and Territories.

The Hospital sector total existing and future LLW is reported at only 3 m³ over the 100-year period and "Research and Education" sector LLW is reported at only 2 m³.

The situation for ILW is similar, with a total of only 4 m³ across existing and arising ILW over a 50-yr period, with 3 m³ attributed to the Industry sector and only 1 m³ attributed to the Hospital sector.

Total State and Territory holdings and arisings are relatively minor compared to existing ARPANSA 2021 holdings of 66m³ of LLW and holdings of an ILW packaged inventory reported at 22 m³.

ARPANSA has the legislative powers, the safety and security mission, and capacity to take over State and Territory radioactive wastes as a feasible alternative and preferably public interest outcome.

Conclusion: The new ALP Federal Government should consider and act on the eight public interest Recommendations provided herein, learn the lessons from the failure of nuclear waste projects in Australia, and not continue to try to impose nuclear waste storage onto an unwilling SA community.

My background experience is relevant: As an Australian Conservation Foundation (ACF) campaigner based in Adelaide over 1996 through 2011, including 5 years on a prior Federal Government attempt to impose a nuclear waste dump in SA - 1998 to 2004 – a flawed process that had to be abandoned.

I have been an invited Witness as an individual involved on nuclear waste issues at a 2016 Hearing of the SA Parliament Joint Committee Inquiry on the Findings of the SA Nuclear Royal Commission.

As an Independent Environment Campaigner, I have provided public interest Briefing Papers and Public Submissions throughout this NRWMF process. For instance, see a Brief: [Nuclear Waste Store siting at Napandee also targets the Port of Whyalla](#) (Feb 2020); a lead Public Comment: ["Input to the CEO of ARPANSA on Alternative Storage of ANSTO ILW at Lucas Heights"](#) (Nov 2021, 26 pages).

I also provide various media commentary, for instance see: **"Alarm on nuclear waste transport"** (By Clare Peddie, SA Sunday Mail Rural Edition, 31 July 2022), the article text is provided at p.4.

Note I consider providing further Public Comment on matters of Transport and Shipping of wastes.

Please feel free for a Delegate of the Minister to contact regards any aspect of this Public Comment.

Yours sincerely

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a 'Voice' of the [No Nuclear Dump Alliance](#)

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"Alarm on nuclear waste transport"

By Clare Peddie, SA Sunday Mail Rural Edition, 31 July 2022, p.22.

A DECISION to exclude the risks of shipping and trucking intermediate-level radioactive waste from the environmental impact assessment of the planned Kimba nuclear waste dump has riled MPs, experts and Whyalla locals.

Independent environment campaigner and consultant David Noonan said Whyalla was the only port in the region with the infrastructure to take the 110-tonne casks the waste would be shipped in.

Mr Noonan wrote to the federal government in June demanding an explanation for excluding shipping and transport of 'waste residues from reprocessing spent research reactor fuel' from the EIS. 'It is nonsensical and contrary to the public interest,' he said.

'It is just not credible to claim a later separate referral and assessment can somehow cover (it) ... after the dump has been pushed through.'

Environment Department assistant secretary Kylie Calhoun said separating the transport issue would result in a 'better-informed assessment of (it) at a future point in time.'

South Australian Greens senator Barbara Pocock said that was an 'unacceptable' position.

State Giles MP Eddie Hughes called for a 'round-table dialogue about the responsible long-term disposal of our domestic long-lived intermediate waste, not moving it from one interim site to another', given it ultimately required 'deep geological disposal'.

Nuclear industry expert and author Ian Lowe, an adjunct professor at Flinders University, said the 'serious' transport risks deserved proper scrutiny and consultation.

Whyalla resident Andrew Williams has raised his concerns with the council. Mr Williams said he firmly believed the transport routes should be publicly disclosed and subject to extensive consultation.

Recommendations

Recommendation 1: Key public interest options in Radioactive Waste Management warrant EIS level assessment, as feasible alternatives to the proponent's limited EPBC Referral actions:

To not impose nuclear waste onto an unwilling SA community; respect for UNDRIP Article 29; ANSTO's waste producer responsibility to retain ILW on site - rather than double handling with *indefinite* storage at Kimba; ARPANSA to secure State and Territory wastes.

Recommendation 2: The final Guidelines must require the proponent to explain how the ALP Federal Government intends to override the *SA Nuclear Waste Storage (Prohibition) Act 2000*, the steps required to do so - such as to issue a federal Regulation naming the SA Prohibitions Act, and the intended schedule of this override within the NRWMF plan.

Recommendation 3: The final Guidelines must require an assessment of the impacts of the proponent's plans to impose nuclear waste onto SA community, to override SA Law, and to defy the Labor State Government and Barngarla People's clear opposition to the NRWMF plan.

Recommendation 4: Due process in accordance with UNDRIP Article 29 and the provision of Indigenous People's rights to "Free, Prior and Informed Consent" must be required in the EIS.

Further, if the proponent ARWA intends to not consider and/or to not comply with UNDRIP Article 29, that egregious failure must be made public as soon as possible in this EIS process.

Recommendation 5: The EIS on the NRWMF must be directed to prepare a full socio-economic assessment of the option that the proposed ILW Store does not proceed. This is necessary given ARPANSA's absolute discretion to not grant a separate required Licence for the ILW Store.

Recommendation 6: The EIS must recognise ARPANSA's existing feasible alternative for the ANSTO site to continue to safely and securely store ILW "*over the next decades*", and for ANSTO's highly hazardous reprocessed nuclear fuel wastes to be retained on site "*until the availability of a final disposal option*". In these key respects, the proposed ILW Store site near Kimba is unnecessary.

The EIS must prepare a comparative assessment of continued secure on-site storage of ANSTO ILW with imposed transport & *indefinite* above ground storage at Kimba without a social license in SA.

Recommendation 7: The EIS must assess non-ANSTO Commonwealth agencies longer term options to continue to securely store ILW as alternatives to reliance on a proposed ILW Store at Kimba.

This should exercise Commonwealth agency obligations to safely and securely store ILW and assess a rationalisation of ILW holdings between Cth sites and between agencies including the option for ARPANSA to take custody of and secure non-ANSTO Cth agency ILW.

Recommendation 8: The EIS must assess ARPANSA's options to take over custody of State and Territory radioactive wastes as a key public interest feasible alternative to the proposed NRWMF.

As a priority ARPANSA should secure the relatively minor radioactive waste holdings and arisings from States and Territories in the Hospital sector and the Education and Research sector.

The proponent plans to impose nuclear waste onto an unwilling SA community:

Strong public interest legislation has been put in place in South Australia to prohibit the import, transport, storage and disposal of ANSTO nuclear fuel wastes, Intermediate and Low-Level Wastes.

The proponent's NRWMF plan is an affront to democratic rights in SA and seeks to over-ride SA law.

Storage of nuclear wastes compromises the safety and welfare of the people of South Australia, *that is why* it is prohibited by the SA [Nuclear Waste Storage \(Prohibition\) Act 2000](#).

ANSTO irradiated nuclear fuel wastes and ILW from reactor and radioisotope facility operations were first prohibited in SA under the political leadership of Liberal Premier John Olsen AO in 2000.

The *Objects* of this Act cover public interest issues at stake, to protect our health, safety and welfare:

"The Objects of this Act are to protect the health, safety and welfare of the people of South Australia and to protect the environment in which they live by prohibiting the establishment of certain nuclear waste storage facilities in this State."

The proponent's intended above ground Store for nuclear fuel wastes and ILW is *illegal* in SA as our Parliament considered and rejected an analogous Store plan by Prime Minister Howard in 2000.

Labor Premier Mike Rann then extended legislative protections to prohibit other radioactive wastes.

South Australian's have exercised their democratic rights to "*prohibit the establishment of certain nuclear waste storage facilities in this State*" as the express will of the SA Parliament and the people.

The NRWMF plan is premised on use of draconian powers in the Cth NRWMF Act 2012 to override an array of public interest protections in State and Federal legislation, "*to the extent that it would regulate, hinder or prevent*" actions to authorise a nuclear waste storage facility site and works.

Recommendation 2: The final Guidelines must require the proponent to explain how the ALP Federal Government intends to override the SA Nuclear Waste Storage (Prohibition) Act 2000, the steps required to do so - such as to issue a federal Regulation naming the SA Prohibitions Act, and the intended schedule of this override within the NRWMF plan.

The proponent plans to *impose* the NRWMF onto unwilling SA community at State, regional and local levels, to override SA Law and ignore the wishes of the State Government and the Barngarla People.

The SA Labor Party have long opposed federal nuclear dump plans: "[Kimba site selection process flawed, waste dump plans must be scrapped](#)" (15 Sept 2020), Deputy Leader Susan Close MP stated:

South Australian Labor is calling on the Federal Government to halt its plans to dump nuclear waste at Kimba. ... SA Labor has consistently expressed its concerns about the site selection process and the lack of consultation with native title holders. ...

This was a dreadful process from start to finish, resulting in fractures within the local community over the dump. The SA ALP has committed to traditional owners having a right of veto over any nuclear waste sites, yet the federal government has shown no respect to the local Aboriginal people.

Recommendation 3: The final Guidelines must require an assessment of the impacts of the proponent's plans to impose nuclear waste onto SA community, to override SA Law, and to defy the Labor State Government and Barngarla People's clear opposition to the NRWMF plan.

Respect for UNDRIP and provision of Indigenous rights to “Free, Prior and Informed Consent”:

It is unacceptable that the [United Nations Declaration on the Rights of Indigenous Peoples](#) (UNDRIP, adopted by the UNGA, Sept 2007), and especially the key provision on Indigenous People’s rights to “Free, Prior and Informed Consent”, are not required due process in the Guidelines. In particular:

UNDRIP Article 29: 2. 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.

Due process in accordance with the UNDRIP must be incorporated into 3.5.1. *Engagement with Traditional Owners* and into what the “*EIS/consultation plan must also*” do. It can-not remain absent from a list of documents the proponent’s consultations with Indigenous people must consider.

Recommendation 4: Due process in accordance with UNDRIP Article 29 and the provision of Indigenous People’s rights to “Free, Prior and Informed Consent” must be required in the EIS.

Further, if the proponent ARWA intends to not consider and/or to not comply with UNDRIP Article 29, that egregious failure must be made public as soon as possible in this EIS process.

An inappropriate option must be removed from the draft Guidelines, in providing (p.18) for the proponent to not incorporate feedback from the Barnjarla People in a an ‘EIS/consultation plan’:

“The EIS/consultation plan must also:

- demonstrate how feedback from the Barnjarla People, including the Barnjarla Determination Aboriginal Corporation and other First Nations people has been incorporated into project planning, implementation and rehabilitation, and the justification for not incorporating this feedback as necessary.”*

There is no credible ‘justification’ for not properly incorporating the Barnjarla People’s position.

The Guidelines must also explicitly acknowledge the spiritual health of the Barnjarla People, as recognised Native Title holders and Indigenous traditional custodians over the region, are values to be protected from impact by the proposed National Radioactive Waste Management Facility.

This must include the ‘intangible’ cultural heritage, Song Lines and Story Lines, that are at stake.

As this nuclear waste facility triggers EPBC Act Section 21 “Protection of the Environment from Nuclear Actions”, the protected matter is “*the environment*” (the whole environment).

The Department of Environment and a federal ALP Environment Minister have previously recognised spiritual health as environmental values to be protected in EPBC Act nuclear action assessments.

Environmental values have been defined to “*mean the physical characteristics and qualities of the environment that contribute to biodiversity conservation, and the social, spiritual and economic health of individuals and society*” (see EPBC “[Olympic Dam Decision Conditions](#)”, The Hon Tony Burke MP, Minister for Sustainability, Environment, Water and Communities, Oct 2011, Definitions p.21).

The Hon Minister Tanya Plibersek MP can require assessment of risks & impacts to the environment, and under the EPBC Act Section 134 (1) can attach conditions as “*necessary or convenient*” to protect the environment, including to assess and to protect Indigenous cultural values and spiritual health.

The option that ARPANSA does not License the ILW Store must be fully assessed in the EIS:

The draft Guidelines provide only token reference to the required approvals from ARPANSA and to the potential significant consequences for the NRWMF from those regulatory Licensing decisions.

The CEO of ARPANSA has repeatedly made clear that the nature of the NRWMF requires two separate Licensing, safety case and assessment processes under the ARPANS Act 1998, with “*the regulatory decision-making process potentially reaching different conclusions*”.

For instance, in a [Regulatory Assessment Report](#) (March 2022) on a Licensing decision to extend approval for ANSTO’s ILW Storage Facility at Lucas Heights out to 2037, the CEO provided responses on the NRWMF relating to the system for final management of radioactive waste, stating (p.70):

Licensing Requirements

Due to the fundamentally different purposes, the safety case for disposal of LLW would reasonably differ significantly from the safety case for ILW disposal and require separate reviews and assessments. It is, therefore, also reasonable to consider storage and disposal at a proposed NRWMF under separate licensing in the regulatory decision-making process, potentially reaching different conclusions. ...

A clear net benefit must be provided by the licence applicant to support a licence application in line with Radiation Protection Series (RPS) C-1 Code for Radiation Protection in Planned Exposure Situations 2020 which includes justification for temporary storage of the ILW at the NRWMF. ...

Granting and Refusing a Licence

The ARPANSA CEO will only grant a licence to a facility if there is confidence that stringent requirements have been met including evidence of no adverse impact on human health or the environment from either facility and a clear justification for the proposed activities. ...

The review of the licence application will only commence if it is deemed reviewable, which will include an assessment of any relevant prohibitions or other actions or instruments that would prevent the lawful establishment of the facility.

Importantly, while one License may be granted – for Low-Level Waste Disposal, the separate License for a “*fundamentally different purpose*” in ILW Storage may arguably not be granted: as it does not have a clear net benefit, as ‘temporary’ (indefinite) ILW Storage at Kimba is not justified and it is largely unnecessary given feasible alternatives already recognised by the federal regulator ARPANSA.

This reality places an onus on the Department of Environment to set final Guidelines on the proponent’s preparation of an EIS that require a full socio-economic assessment on the option that the proposed indefinite above ground storage of ILW is not approved by the federal regulator.

The proponent ARWA must not be allowed to continue to take for granted the absolute discretion of ARPANSA as federal nuclear regulator to make independent Licensing decisions and to not grant approval for the separate License required by the proposed temporary ILW Store.

Employment and socio-economic benefit claims for the NRWM that have been put to the local community, claims considered to be exaggerated in any case, will be markedly different in the scenario that ARPANSA does not allow the Store for ILW to go ahead near Kimba.

Recommendation 5: The EIS on the NRWMF must be directed to prepare a full socio-economic assessment of the option that the proposed ILW Store does not proceed. This is necessary given ARPANSA’s absolute discretion to not grant a separate required Licence for the ILW Store.

Contingency for ANSTO to retain nuclear wastes “until availability of a final disposal option”:

In 2022 the CEO of ARPANSA said “the ANSTO site continues to be safe and secure for the temporary storage of Intermediate Level Waste”, stating “this can safely continue over the next decades”.

Following a \$60 million investment in extended storage for ANSTO ILW at Lucas Heights the CEO licensed ILW storage through to 2037 and discussed the “continued production and increased storage of ILW at Lucas Heights”, stating in Conclusion ([Statement of Reasons](#), March 2022, p.24):

3.8.2 Conclusions: *In my opinion and as argued in this Statement of Reasons, this can safely continue over the next decades pending the establishment of facilities for final management of radioactive waste, including a disposal facility for ILW for which no concrete plans are currently available.*

The CEO has set out long term Contingency Plans for on-going storage of ILW by ANSTO ([RAR](#) p.68):

ILWCI Facility Justification

The proposed ILWCI facility is part of ANSTO’s longer term contingency plans for the ongoing storage of ILW in the situation that a NRWMF facility is delayed. ...

It is agreed the Lucas Heights site is not suitable for final disposal of waste. ... However, the ANSTO site continues to be safe and secure for the temporary storage of ILW.

The CEO has confirmed a future ILW Disposal Facility requires a different site to a NRWMF at Kimba:

... I consider the continued supply of nuclear medicine to be a priority and that the waste management issues it raises to be manageable over the next decades. ...

this decision also refers to a commitment by the Australian Government to establish a disposal facility for ILW at a site different to that of the NRWMF. (SoR p.22)

ANSTO’s ILW requires security, radiation shielding and isolation from the environment for thousands of years, warranting Disposal as Best Practice - not double handling into *indefinite* storage at Kimba.

In 2015 the CEO set a Safety Contingency to retain ANSTO’s highly hazardous nuclear fuel waste in secure extended storage on-site at Lucas Heights: “until the availability of a final disposal option”.

The Operating Licence for ANSTO’s existing reprocessed nuclear fuel waste Store at Lucas Heights “is not time-limited” and was approved with a Contingency Plan to operate for longer than 40 years.

The ARPANSA “Regulatory Assessment Report – Operating” (May 2015) for this Store states:

“If the NRWMF were to be delayed beyond the 40 years, ANSTO would undertake actions to support an extension of the facility.

3.2.3 Contingency options: In the scenario of the unavailability of the NRWMF, ANSTO has identified the following options for contingency. ...

3.2.3.2 Retention of the returned residues at ANSTO until the availability of a final disposal option.”

Recommendation 6: The EIS must recognise ARPANSA’s existing feasible alternative for the ANSTO site to continue to safely and securely store ILW “over the next decades”, and for ANSTO’s highly hazardous reprocessed nuclear fuel wastes to be retained on site “until the availability of a final disposal option”. In these key respects, the proposed ILW Store site near Kimba is unnecessary.

The EIS must prepare a comparative assessment of continued secure on-site storage of ANSTO ILW with imposed transport & *indefinite* above ground storage at Kimba without a social license in SA.

Commonwealth agency and predominant ANSTO responsibility to securely store ILW:

The ARWA "[National Inventory of Radioactive Waste](#)" (dated 6 Sept 2022) shows ANSTO is the predominant source of existing and future radioactive waste in Australia and states (p.7):

"2021 Inventory Summary, ANSTO: The estimated volumes of ANSTO's future Low Level Waste (LLW) and Intermediate Level Waste (ILW) are substantially greater than previously reported."

ARWA reports ANSTO have produced and hold 96.5% of Australia's existing ILW packaged inventory at Lucas Heights, at 1 555 m³ of a total 1 611 m³ ILW. This is a substantial increase of 28% from the 2018 Inventory citing ANSTO ILW at 1 211 m³.

Importantly, only 56 m³ of an existing total 1 611 m³ ILW inventory is from all non-ANSTO sources.

ANSTO are near solely responsible for plans to more than double Australia's total ILW inventory.

ILW requires radiation shielding, safe handling and purpose-built containers for storage & transport.

ANSTO is the predominant waste holder and future producer of both ILW and Low Level Waste, see a Briefing: "[National Inventory of Radioactive Waste shows the Kimba dump is ANSTO's dump](#)".

As by far Australia's primary ILW waste producer ANSTO have a lead responsibility to secure their ILW until the availability of a final disposal option and not act in self-interest to impose it onto SA.

ANSTO intend to generate 97% of future ILW in Australia over the next 50-yr period, to produce 2 198 m³ of a total future ILW of 2 265 m³ (Table 6 "ILW vol in 2021 inventory, packaged m³", p.11).

In contrast, an estimated total 67 m³ of ILW arise from all non-ANSTO sources over next 50 years.

ARWA briefly report a separate category "Nuclear materials inventory 2021" (Inventory p.14), with 450 m³ in existing storage and about 50 m³ estimated to be produced over the next 50-year period.

Nuclear materials feature ANSTO's nuclear fuel wastes - that were described as "highly hazardous" material by ARPANSA's inaugural CEO John Loy in evidence to an NSW Parliamentary Inquiry.

ARWA reports Australia's total inventory of existing ILW including nuclear materials at 2 061 m³ (see "2021 Inventory Summary", Table 1, p.7), and with the addition of future ILW wastes over the next 50-year period, this is proposed to more than double to a total of 4 377 m³.

ANSTO also hold and can retain approx. 50% of a total of 5 891 sealed sources reported nationally.

In contrast, the States and Territories Hospitals sector are reported to hold a total of only a single m³ of existing ILW with no future ILW arising (ARWA Inventory Table 6, p.11), and to hold a total of 82 sealed sources with an estimated 5 arising over the next 50-year period (Table 9, p.13).

Rather than impose ANSTO's 97% of the total ILW inventory onto SA, the EIS must assess feasible alternatives to manage the other 3% across non-ANSTO Commonwealth agencies and the relatively minor ILW holdings in the custody of the States and Territories.

Recommendation 7: The EIS must assess non-ANSTO Commonwealth agencies longer term options to continue to securely store ILW as alternatives to reliance on a proposed ILW Store at Kimba.

This should exercise Commonwealth agency obligations to safely and securely store ILW and assess a rationalisation of ILW holdings between Cth sites and between agencies including the option for ARPANSA to take custody of and secure non-ANSTO Cth agency ILW.

ARPANSA to secure State and Territory radioactive wastes rather than impose wastes on SA:

Commonwealth agencies predominant responsibility for securing Low-Level Waste (LLW) is striking.

Of a total estimated LLW inventory reported by ARWA, existing and arising over the next 100 years of 13 287 m³ of LLW, only approximately 5 (five) m³ of LLW is attributed to States and Territories.

The predominant 13 282 m³ of LLW is overwhelmingly attributed to Commonwealth agency sources.

The ARWA “National Inventory of Radioactive Waste” (August 2022) reports (p.9) State and Territory Hospital sector total existing and future LLW at only 3 m³ over the 100-year projected period and “Research and Education” sector total existing and future LLW at only 2 m³.

Hospital use of radioactive materials has such a low activity level that waste is managed on a ‘store and decay’ basis to be later disposed in general waste and does not qualify as LLW to go to Kimba.

Claims a national LLW disposal facility is needed at Kimba for hospital and medical waste are false.

As a public interest priority ARPANSA should take over custody and secure existing and arising State and Territory radioactive wastes as a key feasible alternative to imposing wastes onto SA.

Total State and Territory LLW holdings and arisings are relatively minor compared to ARPANSA’s existing 2021 reported holdings of 66m³ of LLW.

Across States and Territories, the Hospital sector and the Education and Research sectors total reported LLW holdings and estimated future arisings over a 100-year period are relatively minor compared to ARPANSA’s reported existing 2021 holdings of 66 m³ of LLW (Table 3, p.9).

Claims a ‘National’ facility is somehow needed at Kimba for State & Territory LLW are patently false.

The situation for Intermediate Level Wastes (ILW) is similar:

State and Territory ILW holdings and arisings only total approximately 4 m³ over a 50-year period.

The Industry sector has 3 m³ of ILW attributed, the Hospital sector only 1 (one) m³ of ILW attributed from legacy roles with no future ILW arising, and Education and Research sector has no ILW (ARWA Inventory, Table 6, p.11).

In comparison ARPANSA report 2021 existing holdings of an ILW packaged inventory of 22 m³

ARPANSA taking custody of State and Territory ILW holdings and arisings would make only a relatively minor addition to the volume of their existing holdings of an ILW packaged inventory.

ARPANSA has the legislative powers, the safety and security mission, and the capacity to take custody of and responsibly store State and Territory radioactive wastes into the future.

Issues in long term responsible management of State and Territory radioactive wastes can be addressed by ARPANSA without any claimed legitimate need for a LLW facility at Kimba.

Indeed, it is ARPANSA’s responsibility to do so if Hospital sector wastes are not safe and secure.

Recommendation 8: The EIS must assess ARPANSA’s options to take over custody of State and Territory radioactive wastes as a key public interest feasible alternative to the proposed NRWMF.

As a priority ARPANSA should secure the relatively minor radioactive waste holdings and arisings from States and Territories in the Hospital sector and the Education and Research sector.