ALP Government reports on EPBC Act decision to *exclude* shipping of reprocessed nuclear waste into SA from public scrutiny during assessment of waste dump plans

Briefing by David Noonan, Independent Environment Campaigner 24 July 2022

The new ALP Government has sought to explain nuclear waste dump decisions made just days after the federal election and before appointing The Hon Tanya Plibersek MP as Minister for Environment.

A "<u>Statement of Reasons</u>" Report has been issued by the federal Department of Environment and Water (44 p, dated 20 July) in response to a legal request from David Noonan (18 June) to explain reasons for EPBC Act <u>decisions</u> on federal <u>nuclear dump plans</u> targeting South Australia.

On 26 May the new ALP Government required an "Environmental Impact Statement" (EIS) level of assessment on plans to store highly hazardous reprocessed nuclear fuel wastes above ground in rural SA but *excluded* the shipping & transport of those toxic wastes from necessary public scrutiny.

These EPBC Act decisions accept the aims and claims of the proponent of the nuclear dump plan.

Comment: "It is untenable to propose to assess and impose the indefinite above ground storage of highly hazardous nuclear wastes while denying affected communities in SA from having a say on shipping and transport of those wastes into our State and through a targeted port – likely Whyalla.

"There is scope for the new ALP government to step back from imposing these nuclear wastes onto SA and invoke the federal nuclear regulator ARPANSA's existing feasible alternative to retain ANSTO nuclear fuel wastes in storage at Lucas Heights 'until the availability of a final disposal option'.

"It is just not credible to claim a later separate referral and assessment can somehow cover core required public consultation and impact assessment on shipping these nuclear wastes into SA, while planning to do so only <u>after</u> the dump has been pushed through as a fait accompli" said David Noonan, an experienced environment campaigner on nuclear waste issues in Australia.

The **Report reveals** the federal government has not yet made a 'policy decision' on the transport of reprocessed nuclear wastes to SA, nor on what agency would undertake the action, and is yet to determine the supply chain & associated logistics of multi-modal transport through routes by sea.

The Report (p.11) states that Defence, on behalf of then Minister for Defence the Hon Peter Dutton MP, *"indicated that they have an interest in the transport of waste to the facility"* regarding public roads and railway and the Cultana Training Area at the head of the Spencer Gulf, SA.

Defence: "requested further information regarding the transport options of Australia's LLW and ILW ... to enable it to understand the transport route and considerations for repatriated reprocessed and intermediate level radioactive waste resulting from operations of the reactor sited at Lucas Heights."

It is not only Defence that have **unanswered questions** on shipping & transport of reprocessed nuclear wastes into SA, see Briefing Papers: "<u>Why impose indefinite storage of ANSTO nuclear waste</u> <u>onto SA when its already in secure Extended Storage at Lucas Heights?</u>" (2 p, August 2021); and "<u>Napandee Nuclear Store site nomination also targets Whyalla Port</u>" (2 p, Feb 2020).

The Report cites a response on behalf of the Minister for Health, noting (p.12): "The proposed action will come to ARPANSA at a later stage in the process for regulatory review and assessment, and without a License issued under the ARPNS Act 1998 the proposal cannot continue".

Denying public scrutiny and excluding impact assessment on shipping reprocessed nuclear wastes into SA during the EIS process will complicate and likely compromise ARPANSA's Licensing.

"Statement of Reasons" Report exposes a range of inadequacies in nuclear dump plan:

The Report sets out a range of specialist line Branch advice and concerns on the limitations of information provided by the proponent of the nuclear dump plan, the Australian Radioactive Waste Agency (ARWA), a non-independent office of the Department of Industry, Science and Resources.

On listed threatened species and communities, the Report Concluded (p.20) a "basis of likely significant impact to the Malleefowl, and the 10 other species identified", stating (p.18-19):

"The potential impact of the proposed action on listed species are not presently well understood due to a lack of surveys, assessments and information. ...

On the basis of all the information that are currently available, I agreed with the Department that I could not exclude a real possibility that the proposed facility, and the transportation of LLW and ILW, will significantly impact on these listed species."

'Discrepancies' in the range of vegetation clearance from 50 to 100 ha are reported (p.17-18). Of a project area of approx. 385.9 ha, the project disturbance footprint is reported (p.2) at 277.6 ha.

Advice provided by the **Office of Water Science (OWS)** raised concerns (p.19) relating to impacts to groundwater and water dependent ecosytems, noting: *"clearance of Mallee vegetation may not only affect the fauna that rely on the habitat, but also have broader impacts on groundwater quality"*.

The **Supervising Scientist Branch (SSB) raised concerns on radiological impacts** (p.19), and considered that failure of containment facilities may occur, presenting ongoing risks (p.23):

"Advice provided by the SSB stated that they cannot quantify the potential nature and extent of radiological impacts to the environment during the operational stages of the proposed action because the proponent has not provided sufficient information to quantify these impacts."

"The SSB considers that, over the longer term, the failure of the concrete containment facilities may occur and, even with below threshold radiation levels, there may be ongoing risks to the wider environment from these enduring contaminants through groundwater and surface water pathways."

The Minister's delegate reported concerns over "Potential impacts to the environment" (p.21-22):

"The advices I received and considered from the SSB, the OWS and Heritage Branch each noted the difficulty in assessing the likely nature and extent of impacts to the environment, as only preliminary desktop and field studies have been undertaken. ...

The SSB noted that information on the likely nature and extent of environmental impacts (both radiological and other) would usually be contained in the facilities safety case, which was yet to be developed for the proposed action..."

"Without appropriate controls, a significant loss of containment of LLW and ILW material would have the potential to cause medium to long term local-scale impacts to people, agricultural values and the environment. Such radiological impacts could be associated with the loss of containment of LLW and ILW during the operational stage through either air (dust), surface water, groundwater or emission of ionizing radiation. These impacts have the potential to occur during the transport, management, and storage on site either through failures of waste management practices, as a result of an unforeseen incident (such as a transportation accident or poor storage practices) or natural events such as the recent extreme rainfall noted in the region of the site."

The Minister's delegate reported concerns on "Groundwater and surface water" (p.22):

"The advice from the OWS and SSB raised concerns with the referral information provided by the proponent in relation to groundwater and surface water, ... OWS noted the rainfall in January 2022 and therefore suggested that more contemporary data from the project area should be considered...

"Additionally, the SSB notes that there is limited information provided on groundwater behaviour during extreme events (rising water tables) and potential risks from both groundwater and surface water inundation of ILW storage facilities and LLW disposal vaults. Again, in the context of recent flooding in the area, I consider this to be relevant. ...

"Without labouring the point, the January 2022 rainfall event is a matter of relevance."

Secrecy on shipping & transport of nuclear waste is unacceptable and invalidates the EIS process:

In addition to on-site disposal of approx. 4 146 m³ of so-called Low Level Waste (LLW), an "interim" Intermediate Level Waste (ILW) storage area will be designed to hold ILW "for a number of decades" (note ILW requires isolation from the environment for over 10 000 years). The Report states (p.4):

"Once the facility is operational, it is anticipated that 5-10 heavy vehicles transporting LLW / ILW will travel to the site per month for the first 10 years."

However, on the most hazardous of nuclear wastes the new ALP Government accepted the nuclear dump proponent's view on behalf of previous Liberal Ministers to exclude public scrutiny and impact assessment on key public interest matters in shipping of reprocessed nuclear wastes to SA:

"The transport of waste residues from reprocessed spent research reactor fuel is not included in the referral ... as part of the establishment of the facility." (p.4)

"As the Department noted, there is no detailed information about the transport of the repatriated reprocessed ILW, such as the proposed routes to the facility and methods of transfer of the material at various stages of the transport." (p.14)

"The proponent acknowledged that multi-modal transport may impact a marine environment through transport routes by sea. ... Given the nature of the action, being a nuclear action, without appropriate controls, I accepted the Departments recommendation that there is a possibility that it would cause release of ionising radiation into the marine environment". (p.26-27)

Conclusion: As Minister for the Environment and Water, The Hon Tanya Plibersek MP should now agree to abandon proposed shipping of highly hazardous reprocessed nuclear fuel wastes to SA for *indefinite* above ground storage and retain these nuclear wastes in secure existing storage at Lucas Heights until the availability of a final disposal option.

In any case, denying public scrutiny on nuclear waste will prove to be unacceptable.

For further information: See "Key explanatory ARPANSA quotes on nuclear waste management in Australia" (3 pages, April 2022). And input to the CEO of ARPANSA on <u>Alternative Storage of ANSTO ILW at Lucas Heights</u> (Nov 2021).